The Care and Feeding Of Your Dragon

or

The Autobiography of Craig Fletcher

Volume Two

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The Autobiography of

Craig Fletcher

--Volume Two--

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The dragon was drawn by Mark C Stone (though you'd never know it by looking at his signature, which I insisted he include, just below the dragon)

Volume 1 and Volume 2 are essentially one book having been split into two to make printing easier.

The lab-cover artwork found in Volume 2 was produced by students at Polytechnic School in Pasadena, California over the forty-six years I taught there. Permission for use was happily given by everyone I could find.

My friend, Cathy Dees, was invaluable as a resource and sounding board.

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Preface

You are about to read the second volume of the two-volume autobiography of Craig Fletcher. This, of course, makes me sound a whole lot more important than I am. The reality is that because I've included around 240 pages of lab cover artwork, the book is now a bit more than 1200 pages. That is just too much to get under one cover.

If you haven't read the first volume, you will be at a considerable disadvantage when I start making references to *the Brothers* and *Kay* and *chelahood*, and will undoubtedly not come away thinking charitably about me. I am not looking for charity. I did write the book for those few who might find something useful in it, though, and the basis for that usefulness was laid out in the first volume.

Sooooo, if you haven't yet read the first volume, I urge you to do so. And for the rest of you, there is still a lot to be had. Please do enjoy the final six-hundred pages.

One other thing. The first several chapters of this volume do have bits and pieces of information about the Brotherhood, but they are primarily personal. This is also where the lab cover artwork comes in. If your real interest is finding out more about the Brothers and chelahood, things won't start getting interesting for you until Chapter 45.

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Animals are Different

[Back in Chapter 26, I talked about Nature and how a part of nature's task is to reflect the state of humanity. The material was somewhat abstract. There were stories I could have told but didn't. Part of the reason I didn't tell the tale you are about to read is because to understand it, you need to know who Amber is, and she hadn't yet been introduced in the book. That piece is now in place, so now you get the story and all that follows it. (This chapter was originally written in real-time, more or less, though I'm obviously proofreading it "later."]

Amber's dog, Sully, was the St. Bernard I bought for her and the family seven years ago (this was written in 2015). Back in the chapter in which I talked about Amber, you will find a picture of him as a puppy sitting on my lap behind the wheel of the Porsche as we drove him to Amber's house from the breeder's. (The photo you are seeing above is of him being held by her when he was still "little.")

A few months ago, I went out to Highland to do some work on the house, but primarily to see the dog. Toward the end of the visit, Amber and I took him for a walk (that's the big oaf to the right).

It was actually kind of funny. There was a place on the walk where going *right* meant we were going home. When we got there, all 160 pounds of him adamantly refused to make that turn. He didn't want the walk to end. He wanted to continue sniffing and piddling and being with his people, and because he had made up his mind, we ended up taking the long way home.

Sully was a typical St. Bernard in the sense that he was strong willed, he knew he was big and he knew he could bull his way through just about anything. He wasn't a bully, but he definitely had attitude. He also had a bit of a destructive side.

His paws were enormous. On several occasions he used them to paw up tiles on the floor of the downstairs bedroom, which was designated *his room* (complete with a twin-size mattress), then chewed them up for good measure. He pawed at and chewed up the door in that very same bedroom, and I believe he chewed up the legs of several of Amber's chairs. He did all of this and more, just for the fun of it.

In other word, although I never saw it, the movie "Beethoven" apparently hits the nail right on the head when it comes to the loveable obstreperousness of a St. Bernard.

Sully was also a bit of an escape artist. He decided he wanted to visit the next-door neighbor one day, so he pawed and chewed his way through the redwood fence that separated the two yards. Once the fence was weakened, he just butted his head through the hole he had created, then powered the rest of his massive, muscular frame on through and into their yard.

He would regularly decide he wanted to go into the front yard, so he would paw and chew at the redwood gate or fence across the side yard next to the garage and, again, once he had pretty much beaten it into submission, he would push through the weakened structure to freedom. More than once, Amber got a cell call from neighbors saying, "Sully is running loose again." In fact, the work I'd gone out to do when we took that walk was to put up steel re-mesh across that entire front fence, gate included, because Amber had been called out of rotations at Loma Linda way to many times due to Sully getting out.

The point is, he was incorrigible. He also regularly chewed, pawed, and clawed at stuff.

Anyway, two nights ago was July 4th (again, this is 2015). As I always do, right around 9 PM I drove the Porsche down to Monterey Rd and Waverly Rd in San Marino, and parked. I was there to watch the fireworks

display put on at Lacy Park (from that point, you could see the areal part of the show above the trees, which was happening about a half-mile away). Predictably, the show was fun. I got back to the house around 9:30 PM, watched a little TV, then went to bed.

At 11:30 PM, the phone rang. It was Amber. She was sobbing hysterically, so much so that I could hardly make out what she was saying. After about twenty seconds of this she finally, haltingly said, "Mom and I went to dinner. Sully was outside. The fireworks must have terrified him because he pawed a hole through the door from the garage into the house. He tried to push into the house through the hole to get away from the noise, but the hole was too small and he got his head stuck. He must have tried to pull his head out but couldn't. He's dead."

Just writing this makes me tear up.

Amber was inconsolable. All she could say was that it was her fault, that she should have known that the fireworks would have scared him, and that being terrified he would have tried to get into the house for safety (she apparently said this over and over again to her mom, who was with her, after I hung up). I told her it wasn't her fault, which I think helped momentarily, but then the guilt of possibly failing her buddy took over again and she was once again sobbing.

She said that the body was there, stuck in the door, and she didn't know what to do. She said the kids were up at Mike's (thank God). I asked if she wanted me to come. She said *yes,* then after a minute said *no* because her mom had gotten hold of Mike (Amber's ex) and he was coming down to help.

I said that I'd come out the next day.

After I hung up, I thought about what it must have been like for the dog, being in the garage, frightened by the explosions and loud, high-pitched, screeching and whining sounds of fireworks going off all around him, fighting to paw an opening in the door, then trying to force his 160 pound body through that tiny hole into safety inside the house (in fact, the dog would regularly go into the small, downstairs, guest bathroom that was right next to the front door, and *close the door*, using the small bathroom like a giant, St. Bernard-size crate). And what must have been going through his mind when he got stuck and couldn't get free? The panic. The terror. This was the animal that would be beside himself with joy whenever I would show up for a visit. This was my friend.

I didn't cry when my mom or dad died, and I certainly don't sob

much, but every time I thought of that poor animal alone, frightened, trying to survive without its people to help, sobbing happened that night.

I went out the next day. Mike had cut the door open and pulled the body out into the side yard the night before. He came down when I arrived and with his help, we lifted the dog into the back of Amber's Honda. She and I took the body to the vets for storage (it was a Sunday) so the crematory could pick it up on Monday. (I would remove and replace the door within the week.)

It's been a day or so (I'm writing this in real time), and I'm seeing things more clearly. I don't think life was trying to send any of us signals. I think it was just time for Amber to lose her security blanket, which he was . . . and as I said, it was *not* her fault.

Sully had evidently been pawing at that door for weeks, so much so that Amber even commented to her mom the previous day that she was going to have to replace the door because Sully had nearly pawed his way though it (it was a 20-minute fireproof door, so it was a large, heavy, solid piece of wood). It never passed through her mind that he would succeed, then try to force his way through the opening.

The point is, I don't think it was the fireworks that motivated him. I think Amber and her mother left to go to dinner and he just started pawing like he always did. When he pawed to the point where there was a hole (it was in a V shape), he tried to bull his way into the house like he always had when trying to get through a structure. Except this time, he got stuck and, instead of lifting his head up and out, he pulled downward and back to get the full strength from his legs behind him. It was a natural thing for a dog to do. In doing so, though, he wedged his neck into the V whereupon, I think, blood flow was cut off to the brain and he just kind of passed out (similar to what wrestlers experience when put in a sleeper hold, except the hold wasn't released upon going unconscious and the prolonged lack of oxygen to the brain killed him). This was not Amber's fault. It was just Sully being Sully. What's more, upon seeing this I realized that he didn't really suffer. He may have been frustrated that he couldn't force his way in as was the norm for him, but I think he just went to sleep without the kind of panic he would have experienced if his air had been cut off and he strangled.

None of this was evident to me, though, for the first twenty-four hours after the event.

SO WHY AM I RECOUNTING ALL OF THIS?

To begin with, I will miss him. I didn't see him often, but he was a presence in my life (and he was certainly a presence in Amber and the children's lives). I enjoyed his company. It makes me feel sad to know that when I go to Amber's from now on, he won't be there, bounding around in sheer delight that I've come to see him and pet him and rub his ears and scratch his tummy and tell him what a good boy he is. But knowing what I think was the real story, I've noticed that his death, tragic as it was, isn't holding quite the emotional charge that I felt when I thought his actions were motivated by fear and desperation. And that got me thinking.

I don't react to human tragedy in the same way I react to animal tragedy, and I don't think it has anything to do with my life as a Franciscan. This is not an intellectual thing. It seems ingrained in me at a very gut level. Nevertheless, I believe I understand from whence the attitude comes, and I think I can explain the why of what's going on inside my thinking.

Animals have a kind of innocence to them. Looking into the eyes of a dog, even if the animal has been mistreated, and you will see a being there who so wants to trust, who so wants to be loved. That is not what you see when you look into the eyes of most humans.

This is, of course, not surprising. Whether we are consciously aware of it or not, we humans have the gift of *free will* and *freedom of choice*. Humans have the capacity to affect their world and the tools to alter its existence. Humans are universes unto themselves. Where they end up is pretty much of their own making (at least on a deep level and in a cosmic sense).

Animals are not like that. They don't create their world. They are a part of nature. As such, a sizeable part of their task is to reflect the state of humanity. The situations they find themselves in are reflections of and intimately related to the situations *we have collectively created within the confines of our own thinking*. What's more, they are our younger brothers. We are responsible for them.

So what ripped my heart out (and Amber's, too) when the situation initially unfolded was the belief that noisy fireworks had terrified Sully into seeking protection by trying to claw his way into the safety of the house. *The reality of the situation did not bear that hypothesis out, but that didn't matter*. At the time, all Amber (and I) could think about was that he shouldn't have been in a position where he felt that fear. He should have been protected. We should have been more thoughtful toward him. We should have known that the fireworks *might* have frightened him.

When she talked to me that night, sobbing hysterically, I didn't focus

on any lapse she might have had in that regard because I knew she had no way of knowing he would do what he did (how many dogs have you heard of who have done something like that?). I didn't accept that it was her fault. What I did focus on was how I thought *he* felt during the episode. Just the possibility that he could have been terrified was enough to put both her and me over the edge.

Bottom line: As I said, this seems to be ingrained in my thinking, but when it comes to people, bad things happening are ALWAYS related to the individual's spiritual path in some way. I don't care what the situation is, humans are not innocents. Humans can take care of themselves, or at the very least are *learning* to take care of themselves.

Animals are not humans. They *are* innocents, more or less tossed on the sea of human necessity. We need to take care of them better than we do.[1]

That's not to say I don't exercise empathy for the downtrodden. I do everything I can to help out my fellow man (and woman), and I try very hard not to make life harder for others than it already naturally is. But as much as I want humans to succeed, I just don't feel the same gut-wrenching anguish for humans in travail as I do for animals in travail, and I'm not sure that that is so unusual.[2]

Addendum 1: When I'd think about the dog, I'd think about him

[1] I know that someone is going to read this and think, "That's ridiculous. There are surely animals that aren't warm and cuddly like puppies, that he doesn't feel sympathetic toward." And my response to that is *yes* and *no*. I don't, for instance, like snakes, but I do feel sorry for the Beings that have to animate those forms because I know they are not inherently evil. Yes, some live by injecting poison into their prey, and the constrictors wrap themselves around their prey and squeeze them to death, but this is an apt metaphor for the way some humans deal with other humans in a psychological sense, and how some humans deal with both the planet and nature in general. I have no problem killing a snake if it is dangerous and I find it where it doesn't belong (though I'd give it a blessing first). But part of the reason why I'm OK with that kind of action is that I know that in doing so, I am releasing that Being from having to animate a seemingly dark form, and that isn't a bad thing (it's the same with mosquitoes). I can't wait until humankind gets to a place where the necessity for that kind of embodiment is no more. (And as a small side point: This should be obvious, but I'll say it anyway: Although my gut-level-reaction to the suffering of animals is truly mine, my understanding as to what our younger brothers *are* in a cosmic sense comes from the Brothers.)

[2] If you don't think this makes sense, watch the movie "Eight Below." It's about a group of scientists who must be evacuated during an arctic storm and who must subsequently leave their beloved huskies in the process. I challenge you to watch that movie and not feel a tug for the fate of those animals.

sitting in my lap in the Porsche as a puppy as we brought him home. I'd think about him barking and dancing around at the back door when he'd realize I was visiting and was in the house, and he was seeing me for the first time in months. I'd think about that terrible night when he died. I'm always thinking about some time *other than now*.

What I realized was that when I think about *now*, about what he must be doing *now*, two weeks after his death, I see him pain-free and in peace, enjoying the company of his kind (animals are a part of an oversoul—upon death, they re-merge with that Self in what has to be a very blissful *going home* . . . except there is a bit of a twist to this when it comes to animals that have been close to humans—I'll talk about this more in the next chapter). He may miss me in his own way, but even if that is the case, his situation is very different than mine. I'm sad. He, not so much.[3]

(We do this with people. We so miss the presence of someone when they die, all we can think about is *how it was* not realizing that that Being is, as we are thinking about them at the moment, *no longer suffering*. Yes, they may be missing us and the situation they had with us here in a body, but they aren't in pain,[4] they haven't ceased to be and, most probably, there is at least a part of them that is engaged in looking forward.

What does the future have in store for me?

Where will I incarnate next?

And maybe, *what do I need to work on as a spiritually evolving Being?*)

The point is, my grieving for the dog is fine and good for me, but it doesn't reflect the state of the dog in any case. The dog is doing fine. I'm the one who is unhappy.

Addendum 2: I told a few people about what happened, Bryan, Richard, Cotter Donnell and Greg Feldmeth at Poly. Interesting, in talking to Greg I mentioned my odd reaction to not being as disturbed about human travails as I am about animals in distress, and he said he feels exactly the

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[3] The Brothers once said that animals are accepting of their situation. That's not to say they don't feel pain or fear, it is just that they don't carry a psychological world around with them like we do so their interaction with the world is different than ours.

[4] This, assuming the individual isn't being held back by emotional ties to family members (such thought-forms can be extremely intense), or from addictions, or from having done something stupid like committing suicide, or from having died in such an emotionally traumatic way that they can't let it go. Assuming none of that is happening, individuals step away from "this life" by going into *devachan*, a kind of compensatory state in which they play out the best of their aspirations while here in a body. Devachan is not forever, but from what I understand, it is quite blissful (a kind of *heaven state*).

same way. He even used the word *innocents* in talking about animals. It may be that this feeling about animals that I've been discussing is more widespread than I think.

Addendum 3: I talked about this in more detail in Volume 1, but the Awarenesses that animate animal-forms aren't as deeply immersed in the experience of matter as are the Beings who animate human-form. The Consciousnesses, you and me, that animate human-form are a part of a greater One, an Oversoul, but they have differentiated within that One to the point where they appear to be entities unto themselves. They create the illusion of *one Awareness, one body*. Animals have not differentiated from their Oversoul to that extent, so one Oversoul can actively animate a myriad of animal-forms at the same time. At the far end of the animal spectrum, where the most advanced of the animal-form Beings exist, differentiation has happened as far as it can go at that level; the animal-forms will have come into close contact with humans; and one Awareness will animate only a few body-forms at a time. As I said, when an animal in that situation dies, what animated its form will simply flow back into a complete oneness with its Oversoul.[5]

I'm talking about this because as I was riding my bike up San Pasqual to Poly in the middle of the day toward the end of that summer, I ran across a woman walking a St. Bernard. I stop and pet dogs all the time, so it wasn't unusual for me to stop for this one.

I usually start by focusing my attention on the owner, questioning them in a friendly way to find out what the situation is with their dog (is he friendly?; can I pet him?; how old is he?; does he still think he is a puppy?; stuff like that—in this case, the animal turned out to be a two-year old female). Once I have the owner feeling comfortable with me petting their dog, I focus on the animal. When I did this in this case, I was surprised to see Sully in the animal's eyes. The group soul was very evident, and as I pet her, she finally just sat down and looked at me straight on, kind of as if to say, "I recognize you." It was very sweet.

I gave her a final pat, said good-bye to the woman, and wheeled my bike to leave. And as I left, I looked back. The woman was trying to walk on, but the dog was sitting, rock solid, unbudging. She just watched me

[5] The Brothers, as I remember, said that an understanding of this was at the heart of some of the more enlightened American Indian tribes when they would not kill for food the last of anything. They always left at least one of the animals or plants they were hunting so the splinter Beings animating the forms taken would have some place to go upon the death of their body.

peddling away as if to say, “You’re leaving?”

Aside, again, from being very sweet, it made me realize how strong the group soul is for more advanced animals. (And I should add that her attentiveness to me could have simply been her registering my regard for animals, but that wasn’t what it seemed at the time. Who knows?)

Addendum 4: Amber, the girls and I will never forget Sully, but earlier this summer (it’s now the summer of 2016) she and the girls went to an *adopt a pet* function and adopted a male German Shepherd puppy (about six months old, so he isn’t a cuddly puppy, he’s big), a black female terrier that is probably two years old . . . and a cat (I’m not too sure how the cat got into the mix, but it did).

The German Shepherd is very loving and a great watch dog (his named is Bay Max for reasons that elude me); the terrier is very sweet and very needy (she gets snippy if she thinks Bay Max is getting more attention than she)—she also gets right onto your lap to put her paws on your shoulders in an attempt to lick your face every chance she gets (her name is Marmalade); and I don’t know the cat’s name, but he’s not the least bit put off by the dogs, plays with Bay Max (and I think sleeps with him) and is very affectionate (when Ambers is watching TV, he curls up on her lap and purrs and kneads and goes to sleep).

As I said, she will never forget Sully, and no animal will replace him in her heart, but she does now have new, lovely animals in her abode who needed a home and appreciate the one she has given them, and who have given me a very good reason to go visiting again (not that I don’t enjoy seeing Amber and the girls by themselves). The last time I was there to fix a plumbing problem, I finished up quickly, then we took the dogs to a lake that is about forty-minutes away up in the mountains above Highland. The dogs had never had the chance to chase a ball into a large body of water, not to mention to swim, and they loved it. It was a hoot.

Chapter 35

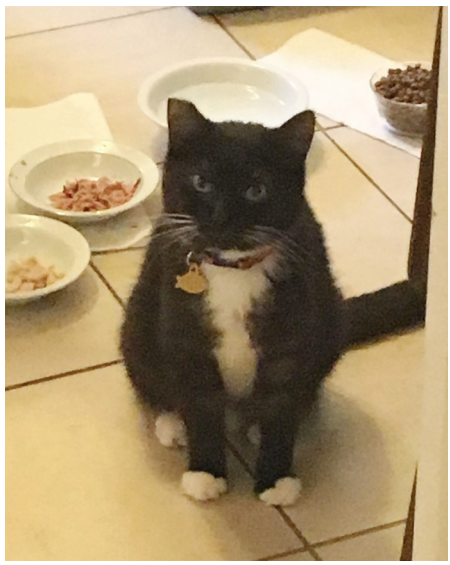
Musings 16
Cindy and Company

[I've had, over the course of my life, several animals as pets and friends. A few have had Brothers-related stories attached to them. The first story I'll be telling falls into that "Brothers" category. The rest will be more conventional.]

I sent a select group of my Poly colleagues the following email (slightly modified) on May 10, 2019:

> So yesterday morning around 6:30 AM, my cat went away (she had a cat-killing virus called FIP—I only had her for a few months). She did everything she could to stay as long as she could, sabotaging every effort I made to take her in and have her put to sleep over the last three weeks when things seemed bad and I thought I had no choice (she did this three distinct times). I woke up yesterday morning to find her breathing heavily. After a few minutes, she came over to the side of the bed, lay down on the floor so I could put my hand on her (I was in bed on my chest looking over the side), and after five or six breaths with each breath become less and less deep, just stopped breathing. She was a very sweet, dignified cat who, in the end, got her way. She was able to stay for as long as possible in the only place I think she felt loved during her life. I will miss her and her almost inaudible meow.
>
> Craig
>
> P.S. I'm emailing about this because I really don't want to talk about it, and sooner or later I knew people would ask how she was doing.

The cat's name was Cindy. She was a small, black, semi-long hair cat



of undetermined breed. She was dignified and "shy" (that was how she was described to me when I was first thinking about adopting her). She had a whisper of a meow that she used rarely (she was not a complainer). She was, in short, a sweetheart.

I got her and her brother from a stray-cat placement organization in Pasadena called Lifeline. She and her sibling—his given name was Jesse—had been dumped at a feeding station for feral cats in the area, and when it became evident that they weren't wild, they were captured, vetted, and put up for adoption. Their approximated age at the time was seven months.

From the start, Jesse was a typical, rambunctious "teenage." All he wanted to do was play. It didn't take long for him to be up on my bed, demanding to be pet, going to sleep on my lap, being a hellion the rest of the time. He spent a full ten minutes one morning chasing his tail (I even got it on video). And in the tradition of other great cats that have lived in this house (I'm thinking specifically of the cat Kay had when I first arrived, Geronimo), within a week he'd managed to nudge off its perch and break one of the tall, glass candleholders that stand in my dining room window.

Cindy was *not* a typical teenager. She was quiet. She didn't want to roughhouse. When Jesse would hassle her, she wouldn't faux fight, she would take refuge underneath the bed. She liked to curl up in one of the cat beds I'd made for them in a corner of my room, but as soon as anything threatening or out of the ordinary happened, she'd be back hiding underneath my bed. She spent a lot of time those first few weeks underneath that bed.

I called her "little girl" from the start. Although all she really wanted was to be left alone, I made it my mission to regularly get down on my hands and knees, approach her gently, and talk to and pet her. She seemed to like that. She would purr very softly.

Sadly, it became evident after a week or two that Jesse was jealous of her. Every time I would approach to pet her, he would actively go out of his way to get between me and her. He also became more and more

aggressive toward her. He would let her eat, which she did mightily, but once done he would trail her, pawing at her. When I first noticed him doing this, I figured he just wanted to play and she didn't. But toward the end of his stay, after he'd repeatedly forced her into exile underneath the bed and I began to hear growling and hissing more and more from her, I realized he was really trying to run her off. He wanted to be *the* cat of the house, and that was that.

Realizing that he was making her life miserable, I told the Lifeline folks that they had to either find a home where Jesse could act like the normal, exuberant cat that he was, or find a little old lady who wanted a sedate cat like Cindy.

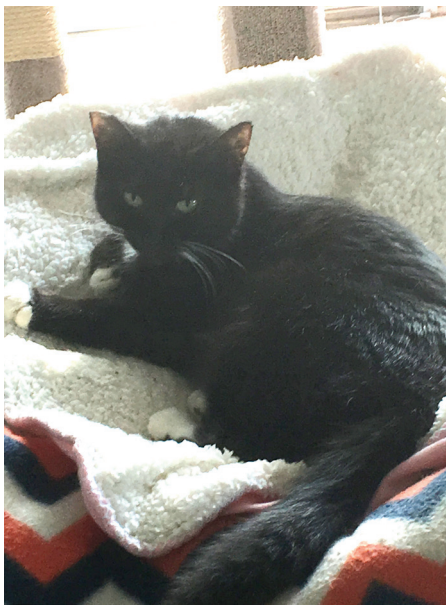
They found a home for Jesse. (He and the kitten in the home he went to became fast friends. I was delighted.)

That left me with *little girl* . . . which was wonderful because frankly, she was the one I was really drawn to (she reminded me a lot of Gray, the cat Cathy had rescued from the pound that then adopted me—I talked about my experience with him in the E.Phil book).

With Jesse gone, Cindy was still skittish. Being alone—something she had never experienced—she spent the next week eating, then go underneath my bed. I would follow her, lie down on my side at the edge, reach in and pet her all the while sweet-talking her. She'd let me, but she still needed the comfort and protection of that enclosed space.

With time, she became more secure. She would eat, then sit in the middle of the bedroom and clean herself . . . assuming nothing happened that might frighten her (like me coming out of the bathroom unannounced). Normally, though, she would proceed to her bed, curl up and go to sleep . . . or try to. I would usually follow her, get down on all fours, and spend time talking to her and petting her. She would always purr quietly.

The first time she got onto my bed was about a week after Jesse left. It was a Saturday. I'd gotten up to feed her, then went back to bed. I was lying on my side with my legs crooked and, to my surprise, I felt a tiny *thud* (her jumping up onto the bed), then *pad, pad, pad* (her walking over to me), then *nudge* (her throwing herself up against my legs). And with that, she began to wash herself. It was a very sweet acknowledgement that I was a part of her life. It wasn't definitive. There were many times thereafter when she would eat, some slight disturbance would happen and she would dart underneath my bed. Whenever that would happen, I'd get down and talk to her and pet her. I always wanted to be sure she knew that everything was OK.



With her willingness to get onto my bed, it gave me the chance to make up a bed-like area for her to sleep on at the foot of my bed. She spent a lot of time kneading and purring and sleeping in that bedding (there she is in her bed in the photo).

One of the things I noticed about her from the onset was that she had a limp. I thought that maybe someone had mistreated her, maybe kicked her. It wasn't until after Jesse left that I decided to take her to Dr. Iburg's cat clinic, *Whiskers and Tails Cat Hospital* (what a great name for a cat hospital) on Rosemead Blvd just eight or ten blocks from home. Turned out she had a temperature and some irregularities Dr. Iburg wanted to check out, so she kept Cindy for almost a week. When I finally picked her up to take her home, Dr. Iburg told me there was a chance she (Cindy) had FIP.

FIP is a virus. There is no way to test to see if a cat has it. All a vet can do is look for symptoms: joint problems, hence the limp; an intermittent temperature that doesn't seem to be affected by antibiotics; congestion in the lungs. Cindy had all of these. Nobody knows how the virus is transmitted, and there is no cure. It kills cats 98% of the time within two months of its diagnosis.[1]

I took Cindy home knowing that I might not have her for long, but knowing also that I very much liked this quiet, sweet little being and wanted her to have a good and loving life for the rest of her days.

In and of itself, this story isn't that unusual. Almost everyone who has had pets has had one that has ended up with an illness that has killed the animal. And as I said repeatedly in Volume 1, I am not all that special as human beings go. But I have had a somewhat unusual life, and I do see and, in some cases, do things that might not be so typical. My experience with Cindy kind of fell into that category.

[1] It's a couple of years later as I write this footnote, and they now know that FIP is a kind of coronavirus, something like Covid but in cats.

I got Cindy and Jesse toward the beginning of February. By mid-February, it was just her and me. The doctor's visit happened a week or two after that, so by early March I knew the deal. We had three or four weeks of relative calm. She ate well; she was still a scaredy-cat in the sense that if I dropped something onto the floor while she was waiting for me to feed her, she would make it for the safety of the under-bed region (to my occasional irritation . . . after all the time I'd spent with her, it seemed she should trust me by then . . . but then I'd remind myself that she'd had a hard life and that this was how she coped, so I'd go in, lie on my side so I could reach in, and talk to and pet her so she'd know that she was safe and everything was OK).

The first time I thought I might have to put her to sleep happened around four or five weeks before the actually end. She hadn't been eating much for several days, she had been spending time in the front room away from me (animals often go off when they are about to die), she wasn't taking care of herself and she was having trouble breathing. I thought she had given up and although it was late afternoon edging into the evening, I decided I needed to put her out of her misery by taking her in the next day.

Bedtime came. She was curled up in her mini bed at the foot of my bed (see photo). I got into bed for the night. I was on my side facing her general direction. I hadn't yet turned the light off.

Putting her to sleep was heavy on my mind. It was then that she did something she had never done before. She got up and walked over to me, sitting down not more than six inches from my face. Once there, she just sat, looking at me. Evidently, she wanted to be pet, which I accommodated. She then got up, positioned herself on the pillow next to mine (something else she had never done), and began to wash herself.

As insane as this is going to sound, I think she knew I thought she had given up, and that I had decided to take her in the next day, and I think she was letting me know she didn't want to go. It was as though she was saying, "Look, see, I'm acting normal. I haven't shut down." (Remember,

almost nothing she did during those few minutes was *as usual*). And if that wasn't enough, I had a dream that night in which she scratched me when I tried to pick her up, almost as though she was angry at me.

The conclusion I drew when I woke up the next morning was that she was so immersed in the experience of being in a place where she was loved, she didn't want to leave any earlier than was absolutely necessary, no matter how she felt . . . and she wanted me to know that.

Needless to say, I didn't take her in that day.

From the start, Dr. Iburg had me giving her a steroid to help the limp and her appetite, and a slow acting antibiotic to help with secondary infections. I tried giving her the medications in a gel tab I'd load myself, but she so didn't like having a pill pushed down her throat I finally started crushing the pills into powder and putting them into her food. This made for some very frustrating and stressful times for me as I'd opening one can after another trying to find something she'd eat, with each offering having the crushed-up pills in it. Some mornings everything would go smoothly and she'd eat like a champ. Other times she would be fussy and I'd have a terrible time getting the meds into her. It got to the point where I was spending upwards of $4 to $5 (twice a day) on cat and human food (canned tuna and chicken) for her. I didn't mind burning the money, but it was hard when she wouldn't cooperate because I knew it meant she wasn't good.

As time proceeded, it became obvious to me that at least part of the breathing problem was not so much congestion in her lungs as it was congestion in her head. It dawned on me that when that happens to humans, we give them antihistamines. This was not normal procedure for cats, but Dr. Iburg said to give it a try, which I did.

Toward the end, Dr. Iburg relieved me of having to give her the antibiotics by giving her a shot that covered that need, and all I had to do was give her the steroid and the antihistamine. That I did by dissolving the ground up the pills in water, then shooting the water down her throat with a syringe.

To my considerable delight, the antihistamine seemed to make it possible for her to breathe through her nose again, which she hadn't been able to do earlier and was part of the reason she sounded so horribly stressed most of the time. The antihistamines would only last for about twelve hours, so I had to do this morning and night, but it seemed to work and it made her life easier.

The second time she stopped me from taking her in to be *put to sleep*

also happened in the evening. Before I caught on to the antihistamine trick, she was having a really bad night, lying in her little bed, having a horrible time breathing with loud, labored, wheezing sounds coming out of her. It was so bad and so upsetting that I once again thought, "Maybe this is it. Maybe this is when I'll need to take her in and have her put to sleep."

I was in bed. I hadn't done any meditating for quite a while, but her situation motivated me out of my doldrum. I started by taking a few moments to project as loving a thought as I could toward the over-soul that was at the heart of *little girl*. "I'm doing the best I can for you," was the thought. Then, as I lay there on my side facing her with my eyes shut and the lights off, I visualized my hands around her with glowing, golden light between them. It was something we had done with the Brothers on occasion. It wasn't designed to heal. It was more a projection of lovingness in the form of light.

I didn't do this with the thought that anything would come of it. I did it because I felt an overwhelming compassion for her situation and the fact that she wouldn't be able to enjoy a full life in the loving surrounding she had stumbled into . . . and even though I knew she felt miserable, I wanted her to palpably feel beyond that misery that she was loved.

The meditation came easily, the light was strong, bright and steady, and I held it for, maybe, fifteen minutes . . . And as I did, her ragged breathing calmed until it was normal.

I woke up a couple of times during the night and went in my mind to reestablish the light. It was still there. Her breathing remained calm throughout (thereby extinguishing my thoughts of taking her in to be *put to sleep* the next day).

I remember getting up in the morning, seeing that she was still in good shape, going to school, and while at school marveling at how easily I had been able to conjure up the light and the energy that went with it. Then it hit me like a ton of bricks. "Dunderhead!!! This wasn't you, the great healer. I don't have that kind of juice." Someone was giving me help.

I don't know who it was, Rolf? Kay? Henry? (Henry was a friend of Kay's on the other side)? one of the workers? I don't know who, but someone with energy had bolstered my small effort and given my little friend peace. It is both sad and amusing that it took me so long to realize that that was what happened.

For the next few weeks, she would have trouble breathing periodically, but most of the time she seemed peaceful. The afternoon before the morning she died, she was having a little bit of trouble breathing. I gave

her the antihistamine/steroid slurry I'd concocted for her, and after an hour or so things got better. I caught her washing a couple of time that night, something she didn't do often around me, again, something I think was her way of letting me know that she was OK.

She slept on the bed that night in relative peace, but when I woke up around 4:00 AM to pee, she wasn't there. This wasn't too surprising. She often got up to drink some water or go to the bathroom. I went back to sleep and awoke around 6:15 to pee again. When I tried to go back to sleep, I heard off in the distance what sound like *little girl* digging in her sandbox. What was weird was that it continued on and on. I finally opened my eyes and saw that she was next to the chest of drawers in one of her usual spots on the floor, lying in the sphinx position, breathing really heavily (that was what I was hearing). And every few breathes, she would make a loud, unsettling, raspy sound. The more I listened, the more it was evident that she was in serious discomfort . . . and that this may be it.

It was, maybe, time to *put her to sleep*. I figured I'd leave her and go to school, and if she was in the same shape when I got home, I'd take her in. But the more I listened, the more evident it became that she was in real distress and I needed to act. I decided I would take her in before work and leave her. It wasn't the way I wanted to do it, but I didn't have much choice. The doctor wouldn't be in until 9 AM, and I had classes I had to teach that started at 8 AM.

Interestingly, as she had done *every time I had thought that way over the previous several weeks*, she let me know she didn't want to go out that way.

She got up, walk over toward me (I was lying on my side on the edge of the bed), but instead of stopping to let me pet her, proceeded to go underneath the bed. She was making it impossible for me to grab her to take in to the vet. She had made my decision for me. She wasn't going to be taken in that morning.

As soon as I mentally acknowledged that that was what she was doing, she walked back out from underneath the bed and stopped where I could put my hand on her. I did so, stroking the back of her head. She kind of swayed a bit, made that rasping sound a few times, then very pointedly lay down next to the bed. I was still lying on my side in bed, so I could put my hand down on her. She breathed heavily four or five times, then her breathing lightened, then it just stopped.

She had gotten her way. She was able to stay for as long as possible in the only place I suspect she had ever felt loved. She hadn't wanted to leave, and she fought me every time I thought her distressed warranted

putting her to sleep. She just didn't want to go. She just didn't want to leave me and her new home.

I had to go to school, so I left her until the afternoon. That afternoon I took her to the vet to be cremated, and that was that.

I talked to Cathy that night. I told her how *little girl* died. Cathy had an interesting recollection of something the Brothers said to her and Zandra Ralphs before I arrived on the scene.

When animals in the wild die, it is a relatively easy transition in the sense that they flow naturally back into their oversoul with little emotional attachment to the life they are leaving. But when an animal dies that has had close contact with a human or a group of humans, it isn't as easy because an emotional/psychological bond has been established. I never heard the Brothers say this, but according to Cathy, they apparently said that in that case, the animal self will go into a very minor devachan-like state in which it has to chance to replay the best of its interactions with its human(s).

This was news to me. I only remembered the Brothers talking about something like this once. The circumstance was unusual. A very high chela in Egypt had a lion as a pet (the lion's name was Ramses), and because Ramses was in contact with such highly evolved Beings, it kind of accelerated its differentiation to the point where he was really ready to cross the line between animal and human. Problem was that because we are now into the Kali Yuga (i.e., midway through this evolutionary cycle), the doors between the levels are closed so he *couldn't* make that move. The Brother's solution was to put him (Ramses) into a kind of dreamless sleep to await the next sweep of evolution to come through.

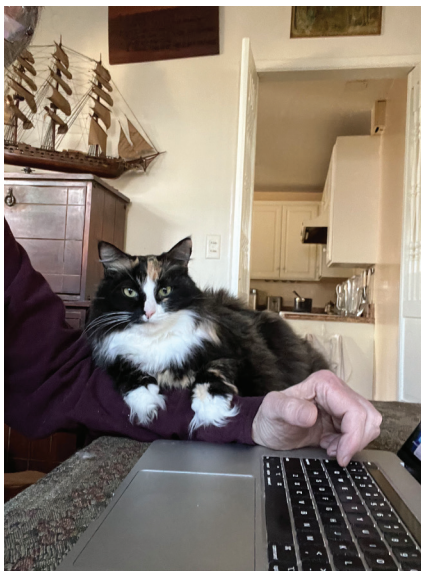
My little friend would certainly not qualify for such an exception. She wasn't terribly highly evolved as cats go. But she had been afforded a very nice experience with me, and if there was (as Cathy said) a mini-devachan available to animals before they completely absorb back into their oversoul, I'm sure she was drawn into it and enjoyed mightily her loving home, no matter how short-lived it was here on the physical level.

In any case, when she died, I was sad because I knew I would miss her, but my thought first and foremost was that she was a happy kitten now. She wasn't in pain; she wasn't having trouble breathing; she wasn't in distress. She was good.

_____x_____

[Isabella . . .]

For those of you who worry about my not having a cat, an interesting thing happened recently (it's 2022). Amber's sister has cancer, and Amber is getting ready to take care of her. The sister is, unfortunately, allergic to cats, so Amber asked if I would like to take in Isabella, a very sweet, affection, playful, long-haired cat she had (in fact, it was Isabella who spent nights on my bed with me when I was at Ambers recuperating from my hip replacement a few years back—the cat is lying, propped up against me, as I write this). She is now my cat, and she is a love. The first photo shows her pawing at my finger (her paws are a lot bigger than they look in the photo). The second photo is of her laying



on my left arm as I'm trying to use my computer, and the third is of her licking the condensation off a glass of ice water (something I've never seen a cat do before in my life). [2]

[2] As a small aside, just before I go to bed, she gets into the bathtub and more or less demands that I roll a small ball around the tub for her to chase and catch. And just recently,

_____x_____

[There have been others . . .]

This addendum was written in 2024: It dawned to me that I have said a little something about a few of the animal that have lived with me, but that I could say more. I like animals. Here are more stories.

My across-the-street neighbor, Howie, has lived in our neighborhood for probably thirty years. He is retired now, but he had his own business as a landscaper. Early on, he married a Vietnamese woman who was considerably younger than he, and the two of them had a child together before she ultimately left him.

While she was with him, she had a cat. When she left, Howie continued to feed the cat, but I don't think he went out of his way to be very nice to the animal. I suspect this for a couple of reasons, chief amongst them being that after she left, the cat began hanging around Kay's house where I was living in the back bungalow. One day he saw me coming home and kind-of made a beeline for me, obviously wanting to be pet. Because I like cats, I sat down on the driveway cross-legged, let him curl up in my lap whereupon he went to sleep (not something you'd expect of a cat that felt wanted at home).

Winter arrived and about a month after our little sit-down I noticed him hanging around in the back yard outside the sliding glass doors into my bungalow. Nighttime was coming and the temperature was dropping fast. I felt sorry for him, so I let him in. I gave him food; I let him stay in for the night.

My bungalow had originally been Kay's garage. She had turned it into an artist's studio. When I arrived, I fixed her roof by extending the west wall upward six feet (to make the roof slanted, versus flat), and in doing so created a mini-loft next to the extended wall. I built a staircase to

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she has been getting *outside* the tub expecting me to roll the ball up the side and above the lip whereupon she swats at it, even catching it with her paws in some cases. I made a couple of YouTube videos of her doing this. The first, https://youtu.be/6dOcbKUekWQ , is the one in which she is just playing with the ball in the tub. The second, https://youtu.be/CN1q_XkgT4g , is the one in which she actually catches the ball while it (the ball) is in flight (this one is the more amazing of the two). Take a watch if you have the time. It's a hoot. Also, while I'm at it (and this is completely off-the-wall), there is a video I show my kids that has cats in it that is also hilarious. It is at https://www.youtube.com/watch?v=X-3iFhLdWjqc .

access the loft, and that is where I slept during the nine years I lived there (you saw the stairs in Volume 1 with Patty's cats lying on it—it was right after Patty got busted for drugs out in Highland and the cats had come to stay while she was in jail). When I went to bed that night (I slept on my back in those days), the cat was so happy to be inside with me that he came upstairs to where I was, jumped up onto the bed and draped himself across my neck as if he was a neck-scarf. He evidently wanted to be as close to me as possible. I let him stay. It was very sweet. He wanted to be with someone who was kindly toward him, and now he had that.

_____x_____

[Gray . . .]

I told this second cat story in the E.Phil. book. His name was Gray, and I ended up with him via Cathy, but in an odd way. When Cathy was busy writing with Kay in the early days of our group, her two girls (Alex and Abby) would regularly bring home stray or homeless animals (often giveaways from in front of a market). The consequence was that Cathy had at one point eight cats in her home.

One of her cats disappeared one day (this was long before we began having coyotes in the neighborhood, so she wasn't expecting that anything foul had happened). She went to the pound to see if the animal had been turned in, and as she was walking down a long aisle of cat cages, an enormous gray paw shot out from between the bars of a cage and stopped her dead in her tracks (he literally put his paw on her chest). She turned to see a huge gray cat with a messed-up eye, sitting looking very dignified, obviously wanting to be recognized. Cathy asked the attendant about the cat. He said the animal had been scheduled to be put to sleep that morning, but its paperwork had gotten lost so it hadn't happened yet. Not surprising, Cathy said, "I'll take him."

She named him Gray. The messed-up eye was a serious problem. Within a month of her getting him, it needed to be removed. When he got back from the surgery, I felt sorry for him and began going over to Cathy's after dinner every night to sit on her kitchen floor and let him get on my lap. Once there, I'd talk to him and pet him and generally make him feel welcome.

I didn't expect anything to come of this. I was just doing it because it seemed right. He apparently took it personally, though, because about a month after I stopped coming I made the mistaken of leaving my back door

open while out (I was living in the house next to Cathy's) and when I got back, found him sitting in the living room, washing (for those of you who don't know, when cats wash themselves it means they are feeling safe and are, effectively, home). With that he became my cat. He was a dear, what with his one eye, and he was the cat I had while I was getting my Master's Degree in Physics. What's more, as I pointed out in the E.Phil book, he would pad into my room at night after I'd gone to bed, hop up onto the bed, lie down on my chest in sphinx position and purr me to sleep. Once I'd be asleep, he'd leave and go into the living room to sleep on the couch (I know this because I awoke once shortly after going to sleep and he was gone). It was a very sweet gesture, and he did it every night.

_____x_____

[Tros . . .]

The next story is about one of Cathy's many pets, another very dignified, absolutely giant cat named Tros (the name came from a Talbot Mundy book called *Tros of Samothrace*). At one point, one of Cathy's other cats had kittens. As they were growing up, the kittens were enthralled with Tros and, especially, his tail. He would be enjoying a quiet lie-down on the hallway floor next to her front door when they would arrive, full of *piss and vinegar*, as Kay used to say, and want to play (as kittens do). If you've been around cats, you'll know that older cats are not generally interested in playing with kittens (kittens are non-stop and, I'm sure, exhausting for their elders). Tros was no different. He would never hurt any of the kittens, but when they would arrive and begin messing with him, it was an irritant. And as is always the case when a cat is irritated, his tail would begin to swish just a bit. This, of course, delighted the kittens—something to attack. Tros was a patience cat, but his patience had its limits. As his tail flicked back and forth faster and faster (with the kittens jumping on it at every turn), he'd finally have enough. His gigantic paw would come crashing down on one of the kittens, pinning it to the floor. And once pinned, he would aggressively *wash* the feline, vigorously licking it from head to foot with the hapless youngster having no way to escape. When done, he would get up and, in a very dignified manner, walk away.

Tros was a great cat.

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[Not quite done—Kay's cats . . .]

I seem to be talking about cats in this chapter, so I really should say something about the cats Kay had. When I first arrived at Kay's, the cat of the house was a very large, short-haired male named Geronimo (the name fit his demeanor). He was a very cool animal, very smart and not to be trifled with. At bedtime before I'd leave every night, I would put him in the front bathroom because if he was left out, he would wake Kay up at the crack of dawn wanting to be fed. He was also the cat who, when Kay would get her luggage out to go traveling, would wait until she was out of the room with the luggage open, then go pee in it just to let her know he knew what she was doing, and that he was not amused.[3]

Her next cat, named Nebi, was another short-haired cat. She found Nebi as a kitten on the steps of the Naba-Daniel Mosque in Alexandria, Egypt (amazingly, at the time all it took to bring a cat into the country was a vet's certificate saying the cat was healthy—Kay brought Nebi back on the plane with her—according to Kay, the kitten spent some of that trip perched on the shoulder of one of the flight attendants). Having survived the streets of Alexandria as a wee-small kitten, he was a scrapper (Kay said she found him running through the house one day carrying a piece of bread he had lifted off the kitchen table, a skill he certainly developed as a small tyke in Egypt).

Nebi died a few years before Kay, so her last cat was a female named Delphi. When I ended up with the house, Delphi was a part of the deal. I had Delphi for nearly twenty years. She was a sweetheart. If I was sitting on the pot, she would come in, hop up, then curl up on my lap. She finally had mild kidney failure, so I had to hydrate her with fluids every day using a fluids bag and needle inserted just below the skin between the shoulder blades. (Most people don't know, but if you pick a cat up by the scruff of the neck, they kind of go limp. It doesn't hurt them; it is the way mother cats carry their kittens. The point is, that area on a cat doesn't seem to have much feeling, so sliding a hypodermic needle into the area doesn't seem to faze them.) Delphi was another in the long list of fine felines that have lived in the house.

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[3] Another story: There was a lamp in Kay's living room that gave off considerable heat. Geronimo used to like to sleep on the couch next to that lamp. One day, I moved him a few feet from his usual spot so I could sit down and use the lamp to read. It was summer (I was barefooted) and warm and I didn't think he would mind. O contraire. He jumped down from the couch and sat at my feet. I could tell he was up to something, so I just watched him. He sat for about twenty seconds, washing, acting like nothing of particular was up, then in one swift, elegant, swooping motion wielded around and *bit my big toe*. With that, he got up and stalked off. This was quite a cat.

Chapter 36

Apparently, the Fat Lady Hasn't Yet Sung

[It never passed through my mind when I was in the middle of my experience with Mary that anything like what I am about to recount would be happening to me in what at the time would have been *the future*. It just goes to show that karma and life really do work in the most surprising of ways.]

A Zen aspiration is, "Eat when you eat; sleep when you sleep." The idea is that we are rarely in the moment when we do things. Our minds are elsewhere. We float through experience.

One of the things I remember vividly about my girlfriend experiences when I was young was that I was never really awake to what was happening, I was always just floating along. So when I got older, after Kay and the Brothers, there was a part of me that really wanted to experience one last love relationship in which I was actually, completely awake throughout. I really wanted to observe the dynamics of the experience.

I have never *not been amazed* at how karma has over the years brought me *what I've needed* dressed up in *what I've wanted*. What's more, in the case I'm about to recount, it brought the added thrill that if things hadn't happened as they did, you'd be reading this book right now *without this chapter* (how's that for cryptic?).

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After Kay died, I got in the habit of going to a movie on Friday nights. I did it because there were lots of neat movies available to see, because Friday was the end of my workweek and because I enjoyed the atmosphere that crowds of people generate. During almost all these excursions, I'd observed couples who were obviously dating and obviously into one another. And occasionally, the female half of the pair was spectacularly pretty/fun/bubbly/sexy, all rolled into one. I note this because I remember watching quietly and respectfully from a distance as the guy and girl of such pairs

interacted, and I remember thinking to myself as I observed the female, "I'd like one of those."

Dialing up a desirable female that finds me "interesting" is not an everyday occurrence, at least not for me (though it has happened). In this case, karma outdid itself. From absolutely nowhere, it dropped a very attractive female into my lap from out of the blue. There was no warning. It was apparently right to happen, so it did. As I said above, it is remarkable how often karma has brought to me what I've thought I've wanted in life.[1]

This is a chapter writ backwards, sort of. It's about a personal relationship, except instead of beginning at the beginning, I'm starting with two of the observations I made after it ended. Once I've made my points, which will be quick, I'll tell the whole story (which was quite pleasant, I might add).

Observation 1: I know all things end, relationships included, even if it is death that does the parting. What's more, relationships are never static. When one falls in love, the standard is to first become completely enthralled with the object of one's desire. With time, stuff happens, other things become the focus of the child-self, and life changes. It doesn't always happen for the worse, but it always happens.

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[1] As a very off-the-wall addendum about *wanting things*: In the 1980s and 1990s there was a Japanese off-shoot of Buddhism called Nichiren Shoshu kicking around the U.S. What was interesting about its followers was that one of their primary disciplines was to picture something they wanted, be it spiritual or material, and repeat over and over again the mantra *nam-myoho-renge-kyo* (phonetically: *nam meh oh, renge ke o*) while focusing on the attainment of that desired thing. The Brothers called this *out-picturing*, and apparently it was/is a thing. That is, if you focus strongly enough on something your child-self wants, karma will respond to the energy you are putting into the acquisition of that thing and sooner or later will bring that thing to you. It will invariably come in a way you will not expect, and in a form that does not bring you what you thought it would, but karma *will* respond to a focused mind. This is dark, of course, as it means the child-self is trying to force life to give it what it wants, all else be damned, but it is possible.

Not so surprisingly, Christianity isn't without its adherents. There is the *prosperity thinking* (Protestant) churches a la Norman Vincent Peale, and there is the Pentecostal and Charismatic crowd. It is the cornerstone of televangelism. Anyone who has watched any of the so-called "men of God" involved in those bits of amusement as they lathered up the faithful, promising salvation and *better times* if the followers would just send in donations, knows that once again, we are looking at some pretty cynical, dark stuff . . .

I'm mentioning all of this because I'm not altogether sure that the experiences I'll be outlining in this chapter weren't to some degree generated (at least in a cosmic sense) by my inadvertent focusing and, hence, out-picturing, for a girlfriend. Then, again, it might have just been karmically "right." The problem with karma is that you can never really tell.

Observation 2: I find it completely enchanting when I can feel karma moving me in some direction, even if it is a direction I don't want to go. For two months before the break-up, I could feel this overwhelming urge to talk to her about the fact that I could tell she wasn't happy. I resisted instigating that conversation because I initially thought that if I could stonewall, the conversation would never happen and we would never split. But I could feel karma nudging more and more strongly, and by the end there was huge psychological pressure on me to act. Karma was being quite vehement. I could *feel* it being vehement. The nudging was turning into a pounding.

Now, for the story. I have certainly had an event-filled life, and I know how fortunate I have been for it. I still ride my bike to school every morning (as of age 64, which was my age when this chapter was written). I still feel good about surfing. I was able to effortlessly wheel-barrel 72 *sixty-pound bags of cement mix* from the front to the back of my house this summer without a hitch. My brain still works well enough for me to have taken Richard's *computer coding class* this last year, and as of now I'm in the process of redesigning my Honors Physics class to include self-made problems delivered via homework videos I will produce and place on the Internet (this is clearly an innovation I've picked up recently and *not* something that was even dreamed about during my "formative years" when I earned my teaching credential in the 1970's)[2].

I've had my ups and down as a human being, but there has always been that whisper in the back of my head that has come from the Brothers. I am grateful for the life I've been afforded including, of course, the existence of modern medicine without which I'd be dead by now. If you had told me five years ago that karma had more up its sleeve for me, I wouldn't have been incredulous but I would have been cautious. I've been alive for a long time, as long as I can remember (that's supposed to be a joke).

In 2009, I was contacted by a professor of mathematics from a major university on the east coast (she is a very private person, so I'll arbitrarily identify her as "AB" and won't specify the school, though if you are an

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2 Minor point: It's two years later. It took me a while to get moving on this, but the videos are now viewable on YouTube prefaced by zPoly: followed by a number, then a title. A link to all of the videos I made can be found at http://faculty.polytechnic.org/physics/3%20A.P.%20PHYSICS%202009-2010/114._video_stuff/List%20of%20Fletch's%20YouTubes.html20YouTubes.html or under "additional websites" on the front-page of my AP Physics Website homepage found at http://faculty.polytechnic.org/physics.

older basketball fan, you will have heard of it). The woman knew that every year I give my physics classes a somewhat math-laden, year-end talk about the Great Pyramid in Egypt (odd topic, but I do it for a reason), and she was wondering if she could use my PowerPoint presentation for a talk she was giving to the undergraduate math club at her university.

This seemed a bit off-the-wall, but I was happy to accommodate.

We began exchanging emails. Although it didn't become evident until much later, she was having "stuff" happen in her life. As such, she appreciated my willingness to interact and talk philosophy. Our communications went on in a fairly intense, fairly in-depth way for a good month. I wasn't expecting anything from the interaction. I was doing what I always do, being helpful.

It ended rather abruptly with her saying she had things to take care of, but that she would be in Southern California on sabbatical "next year." She wanted to know if I would be interested in having tea some afternoon when the time arrived, just to chat. I said, "Sure."

In fact, it was nearly a year before I heard from her again. When she did email, she asked if I was still willing to meet for tea. I said *yes*. She suggested a little café in L.A.'s Korea town.

I arrived on time. Our conversation was very pleasant. There happened to be something going on at Poly the next day. I asked if she would like to go and she said *yes*.

I had gotten to know her a little through our earlier emails, but I further found that this was someone who'd had a lot of life-experience as an adult in the twenty years (give or take) since she left high school. Our conversation filled me in on much of that. She had briefly been married to a guy who was seventeen years her senior (this was when she was 25). Having decided she wanted a divorce within the first year, she researched the law, determined what she had to do to get the divorce and executed the process, all on her own. This was a very bright woman.

She had been a jock who had, in her mid-twenties, torn an ACL during a karate class. The doctor who did the surgical repair was careless and the surgery went wrong. She had to have several additional surgeries to fix the original botched job, then had her body rebel with an auto-immune response that was so intense and off-the-wall that it completely baffled the best doctors in the country (this, including the folks at the National Institute of Health, UCLA Medical Center, USC Medical Center and John Hopkins . . . among others). As of our first tea date, she had been dealing with this for ten years with no resolution in sight.

The position she held at her university had been publicized as a tenure track position in mathematics. Positions like that were few and far between, so 500 post-docs applied. She was the one to whom the math department extended the offer.

Being on a tenure track, she was expected not only to teach effectively but also to publish. (Unlike universities that are all about the research, her institution was billed as a 50/50 university—half research, half teaching.) She had spectacularly good teaching evaluations from her students, but on the research side she additionally had the great fortunate of rubbing elbows with the best mathematicians in her field. She was, as best I could tell, doing math that fewer than a hundred people in the world understood, which was quite an accomplishment for a young woman or, for that matter, for *anyone*.

One of the things that slowly came out of our conversations was that although she was clearly brilliant in math and definitely suited for a professorship in that field, she wasn't sure whether this was something she really wanted to do for the rest of her life. Her mom was dead and had left her a decent inheritance, and her dad was quite rich but a definite, card-carrying sociopath. She had an excellent, analytical brain, but she'd also experienced some very interesting spiritual happenings when younger. The work she was doing in math didn't seem to have a soul. She wasn't happy doing it.

In any case, her life had been fairly full between high school and her mid-to-late thirties.

At this point, you might wonder why I keep mentioning high school. Well, friends, the reason she knew about my *last-day lecture* on the Great Pyramid was because she had been in one of my Honors Physics classes at Poly twenty or so years earlier. I hadn't spoken more than two-hundred words to her outside of class her entire senior year (Rick Carragher, her Cross Country coach, was the teacher on campus she and her friends most wanted to hang out with), but as little impact as I had on her personally, she did remember that lecture on the Great Pyramid (in fact, I only distantly remembered her as an alum when she first contacted me). Our conversation at that tea café in Korea town was, as a consequence of all of this, more like me talking to someone I had just met for the first time than talking to someone I had gotten to know back in the day.

That said, we seemed to click and almost immediately began spending evenings together. There was no intent, no drama, we just got along really well. For the last several years, I had been simply flowing in whatever

direction life seemed to push me. This was no different. Karma plopped her down into my lap, and there she was.

We spent a few weeks together pretty much continuously, and then she moved into my house.[3] It all happened without fanfare (being on sabbatical, all she had was her computer, books and some clothes—she had been staying at her dads). It happened as naturally as water running downhill (again, karma greasing the skids?).

I made a secret of none of this.[4] The reaction within the Poly community was mixed. Upon learning that I was dating an alumnus (translation: one of my old students, as uninterested in me as she had been while at Poly), one of the teachers claimed that current students found the situation "salacious" (as the teacher wasn't one of my biggest fans, I suspect the disapproval was really coming from her, but who knows). I never both-

[3] There was actually a certain amount of humor to the proceedings coming from an unexpected quarter. Amber and I were definitely not doing anything social at the time, but we would still talk on the phone fairly regularly, always at her instigation. There would be times, though, when I'd say something that would piss her off and she wouldn't call for weeks. This happened to be one of those periods, so when I next talked to her, I mentioned my new girlfriend. Her response was, "Jesus Christ. I don't call you for two weeks, and in that time you get a live-in girlfriend? Shit!" It was pretty funny.

[4] As an aside: About twenty-years into my tenure at Poly, we had a husband/wife duo join the faculty who were both mathematicians. She was the younger, very caring and knowledgeable; he was the elder, a very nice man and an excellent mathematician. Upon getting to know them, I found both very agreeable (translation: I liked them). A few years after they arrived, a rumor began to circulate that she had been his student before they got married (turned out the rumor was true). I have to say, it somewhat colored my view of him (not her). I still liked both of them, but in the back of my mind I sort of wondered why he hadn't found a wife who was closer to his age and someone he hadn't had such a dominate relationship with before getting married.

Given all my training with the Brothers and my tendency to introspection, you have to wonder how I didn't know that there was at least the possibility that people might look at me in a similar light, once it became evident what was going on between AB and myself (again, I was quite open about the whole thing). In fact, it never passed through my mind that what I was doing might cause a stir (dumb me). The disconnect was due to two things, both of which were going on in my head. First, she wasn't someone I felt I really knew. If she had been in one of my E.Phil classes or someone who had made it obvious that she really liked me while in my class (and there were females who did that during my time at Poly), I would never had allowed things to progress. But she was (as I said) only a distant acquaintance, so it wasn't as though something that started up during her time at Poly was rekindling. Second, again as I said above, I was definitely in free-run mode as far as how I was responding to life. It really did appear that karma and life were pushing me toward her, so that was the direction I went. It was almost as though the awfulness of the optics of the move were obscured from me, hence my not trying to hide anything. There had to be something more going on underneath the surface (which I will speak to later in the chapter).

ered to correct her, but in fact the reality was that although I could see how someone on the outside might jump to that conclusion, it was nothing of the sort.

As for my friends, most of them were just happy that I was enjoying a pleasant time with a very nice woman.

I was supposed to chaperone the prom that year (actually, I do it every year). AB and I went together. It turned a few heads, but no big deal . . . at least not for me.[5]

That is how it all started.

From February on, AB lived with me (she didn't have to go back to school until January of the next year). We took all sorts of mini trips, just like classic couples do. We went down to San Diego one weekend and enjoyed a night at the *Cirque de Sole*. We spent a weekend in Orange County while I got my scuba diver certification, then spent another weekend at the beach (I don't remember which) during which we caught the ferry to Catalina so I could do my free dive for that certification. Somewhere along the line, we went to San Diego to play softball with a bunch of people she knew there. For one of her doctor's appointments, we spent another weekend in the San Diego area at a very nice, expensive hotel *living the life* (it was a very cool experience, hanging out, having fun, enjoying good food with a very attractive female who seemed to have as good a time with me as I had with her). We took a trip up the coast during my Spring Break, stopping at little hotels along the way, and ending up in the Stanford area before coming back home (the trip was her nod to an invitation by a Stanford professor to come work with him during the summer). J's doctor here in Pasadena got us into the Magic Castle for an evening of great magic and food.[6]

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[5] Again, as a side note, she didn't have anything to wear for the prom. She wasn't a dress-up kind of girl in any case (she really didn't like to shop), but even if she had been, most of her clothes were on the east coast. Shopping had to happen, and I had a blast going with her to buy boots and a scarf and "a little black dress" for the prom (she also wore a necklace I gave her for her birthday). Going out to buy clothes with a girlfriend was something I had never done, yet it is something guys and their gals do all the time. For me, being *tuned to the moment* (remember my desire to have a relationship during which I was fully awake throughout, not just floating along . . . this was part of that happening), it was another enjoyable, new experience.

[6] During one of the sessions, the scheduled magician hadn't shown up so a substitute was asked to take his place. That replacement magician was understandably late for the performance, so while we were waiting I got up, explained that I was a physics teacher of seniors at an academically rigorous private school in Pasadena, and that every year when my students would take their three-hour semester mid-term exam I would wait until they

Even in everyday terms, life was warm and cozy. I would often find her reading on my front porch, waiting for me to get home from Poly. If we were walking, no matter where we were, she always took my hand. In the car, no matter where we were going, she would put her hand on my knee and we would end up holding hands. Even at night, the cat would be wedged up against me on my right and she would be right there, up against me on the left. She was very affectionate in a very sweet, quiet way. It was a very nice experience.

We had a few exotic things happen along the way. For instance, because J's mom left her some money,[7] her dad had enrolled her in a seminar (this was when she was younger) put on, as I remember, by the Wharton School of Business. Over a one-week period, the program was designed to educate the newly rich (or, at least, those with a little more than normal) in the ways of being wealthy (complete with extensive advice on investing, maintaining your wealth, dealing with prospective mates, not being obvious about your wealth, etc.). While there, she met several people with considerably more of the green than she had including a Filipino who would, in time, be given an award for paying the highest income tax for the year in the Philippines. I won't mention his name for propriety's sake. We'll just call him Bill.

Bill was in Los Angeles doing business when AB was living with me in Pasadena. He contacted her and invited her and, if she wished, "a friend," to lunch. Thinking there was nothing more to it than an old acquaintance saying hi, she said sure and brought me.

This was not what he expected.

He was civil enough to me when I was at the table, but when I left to use the bathroom he spent the entire time trying to convince her to "come away with me." He kept saying how much he missed her and how much he wanted to show her how much he loved her, and wouldn't she just give

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had done pretty much everything they could easily do, then I'd stop them (usually about halfway through) for "the halftime show." The hope was that the break would allow them to reset their brains. The show consisted of three pseudo-magic tricks so ridiculous that the kids had no option but to sit back and roar with laughter (forgetting all about their test woes for the few moments of the show). Having explained myself, I proceeded to pull out my spare set of "magic rings" (these being the thumb and middle finger of both hands made to form rings) and did my "magic rings" performance (complete with my humming a jaunty tune for accompaniment). It was (and is) ludicrous, but the folks there seemed to appreciate my willingness to make a fool of myself for their amusement . . . just like my students.

[7] Interestingly, one of the things AB liked about me was that I was the first boyfriend she had ever had who was able to pay his own way (and hers) when we'd go out some place nice.

him a weekend to prove himself.

When I got back to the table, I noticed that she immediately took my hand underneath the table and held it tight. The conversation did take a few odd twists—his off-handedly comment to the couple he was with that if this had been the Philippines, someone who might *get in one's way* could easily just *disappear*, for one, but aside from that, I had no idea anything was amiss until after we left and she told me how he had acted when I wasn't at the table.

He contacted her several more time over the next month trying to convince her that he and his hundreds of millions were something that she should seriously consider for her future. She didn't budge. I was her guy and that was that.

AB was on medical leave from her university, so as I said she lived with me from the beginning of the second semester of the school year (around February 1) until she returned to her school the next year. By the beginning of summer, there were all sorts of questions that were just kind of hanging fire about our relationship. Should I retire and move to the east coast so she could continue to work at her university? Should she quit her east-coast university job and stay here in Pasadena with me (something she really wanted to do at the time)? Should we get married?

In fact, it turned out that she was feeling a little put out that I wasn't being more aggressive about having her quit her job on the east coast to come live with me permanently in Pasadena. We had become a very comfortable, happy couple. She wanted to know why I wasn't acting more proprietarily.

Although I expressed all of this over a period of time, my general thinking at the time was as follows: If she quit her job and came to live with me, she would be committing academic suicide and would be leaving a job most PhD's would kill for. I, at the time, was old as the freakin hills. So if she cut her ties just for me and I died in a year or two, she would be out in the cold. I didn't want that to happen to her. Her having the security of tenure was important.[8]

[8] I can't tell you the number of women I have known who, when young, fell in love, put their dreams on hold and fervently regretted that move later in life. I didn't want her to look back ten years from now and think, "What was I thinking, and why wasn't he looking out for my best long-run interests?" This was clearly the teachings of the Brothers coming to the fore. You don't just think of yourself. You look to consequences, and you look out for the other person.

And as an additional aside, looking out for others can have its pitfalls. It suggests that the guardian is seeing the world more clearly than the recipient and is acting on that insight. I

She was also having trouble getting papers written because the people she was collaborating with were not easy to work with (more about that shortly). She was in constant physical pain due to the knee and autoimmune problem (when someone is hurting physically, which was the case with her, nothing seems right), and she was feeling psychological discomfort due to the uncertainty of her health issues.

I knew that if and when those difficulties evaporated—something I fervently hoped would happen—life would look very different to her and there might be a chance she would actually come to find her university position pleasurable. Being a university professor has the potential of being very cool.

If she stayed where she was on the east coast and I stayed where I was on the west coast, either she would fail to get tenure and be free to come here or she'd get tenure and I'd retire and go live with her there. In either case, with a little bit of patience, I figured we would be OK.

Those were my thoughts. She wasn't overjoyed with the idea of our being separated in the future, but she understood the reasoning and accepted it. That was how it was left as of the beginning of that summer.

All of this was swirling around when an interesting, unexpected, seemingly innocuous event took place.

At the beginning of the 2010 summer vacation, she and I were lounging about one evening when she began poking around in my hair. I'm not sure exactly why she was doing this (nit picking?), but at some point she said in a rather distressed voice that I seemed to have a dark mole on the right side of my scalp. I had relatively thick hair, so it wasn't something I'd have found on my own. Nevertheless, she was disturbed by its look and demanded that I go see a doctor.

I made an appointment with the same oncologist/surgeon who had taken care of the melanomas that had popped up on my nose fifteen years earlier. Although he was not particularly gracious about my arriving on

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can certainly see how someone with a vested interest in another (and let's face it, who of us doesn't have that problem to some degree) may make decisions for another under the guise *it's for your own good*, when in fact the act is no such thing. There clearly is a fine line here. No matter, in this case I really was looking out for J's best interest, even if it looked as though I was robbing her of choice.

And as an additional addendum, it's 2024 and I recently did something that was a *looking out for the other person* kind of thing, and I nearly ruining the relationship because the recipient thought I was treating her like a child. The word *infantilizing* was even used. It never dawned on me, but a clear pitfall to acting on behalf of another is that you inadvertently take the opportunity for choice away from the individual, and that is not a good thing.

his doorstep (he said that looking at moles was not something he did—that was, according to him, more the purview of dermatologists), he did say it was a benign something-or-others that probably should be removed, just to be safe.

This was at the beginning of what promised to be a very full summer. I knew I was going to be grading AP Physics tests just after school ended—a task that I had forgone due to the tumor in my heart the year before and not something I wanted to miss out on for a second year running. I had gotten my open-water scuba diving certification earlier that month so that AB and I could, when we visited Hawaii for two weeks in early July of that summer, go scuba diving. After Hawaii, she had said I could accompany her to a math workshop she was going to attend in Utah in early August. And at the end of the summer, there was a *Wilderness First Responder* (WFR) recertification at Poly for which I was enrolled.

In short, my summer was really booked. And because I had been told the mole was benign, I figured, "What the hell, I'll have it removed at the end of the summer."

. . . And that is exactly what I did.

That summer was quite something. The AP grading happened at Colorado State University in Fort Collins, Colorado. About two days into the event, AB arrived and took up residence in a local hotel. I vacated my digs at the university and lived with her the remaining time. We rented bikes and during my free time rode all over the city. On our last-day's excursion, we found a very cool shop in their "old town" that was dedicated solely to *physics related toys and demonstrations*. I was in heaven. I bought a ton of stuff for my classes.

Instead of returning to Pasadena immediately at the end of the grading, the two of us took a week-long car tour through the Rockies. We visited, among other places Vail, Colorado, where she met with the surgeon who was taking care of her knee problems. We also visited her friend there, Cherry (while at Cherry's, we went four-wheeling over one of their back country forest roads whereupon the back axle of Cherry's jeep broke and we ended up stranded in the mountains, completely with 40-degree temperatures, until one of Cherry's friends was able to rescue us around 9 pm that evening—it was quite an adventure).

AB came back with me from Colorado. We spent a fun July 4th visiting one of my sister's old boyfriends, George, whose family (he and his brothers) annually bought thousands of dollars of illegal firework and blew them off all night long down in Alhambra. (The next year, we went to that

same party and got to ride on a real *fire engine* a friend of George's had bought at a county auction for $3000—it's amazing how quickly an enormous truck like that can accelerate.)

A few weeks later, we took off for Hawaii.

The Hawaiian trip started with our flying to the island of Hawaii on Tuesday, July 13. We stayed on the Kona Coast at the Sheraton Keauhou Bay Resort.

A minor but relevant side note: Several years earlier, I had been given a free trip to Hawaii by the Starwood people (the owners of the Sheraton, among other hotels) in the hopes that I would buy a time-share in a new complex they were building on the Kaanapali Coast on Maui. The complex, including the condos it housed, was the most spectacularly luxurious I'd ever seen, so at the end of the stay I did, indeed, put money down for a one twenty-fifth piece of a time-share.

When I got home a few days later, I realized the idea was really stupid. I knew there was no way I was going to want to be tied to vacationing in Hawaii every year, which is what that move would have entailed. I additionally knew I wouldn't want to spend the money for the home-owners dues or the airfare every year, and I had no guarantee I would be able to get access to the abode during the summer when I was free. Additionally, additionally, as a point of amusement, it was a time when there was a lot of talk about Global Warming and its effect on ocean levels. As this place was right on the beach about a foot above sea level, I figured the lobby might well be under water in twenty years thereby considerably diminishing its value as an investment.

Shortly after I returned home, I exercised my right to cancel the contract and that was that . . . or so I thought.

It turned out that even though I was no longer a proud owner of one of their time-shares, the right hand of the Starwood organization evidently didn't know what the left hand was doing and nobody bothered to cancel my Gold Card Member status.

All of this had happened years previous to AB and my trip to Hawaii, and as I don't spend much time in hotels it wasn't uppermost in my mind. Nevertheless, when AB and I arrived at the Sheraton at Kona, I mentioned to the girl who was checking us in that I might be a Starwood member. She checked, said, *yes*, then said *oh, my, you are a GOLD member!* With that, she proceeded to upgrade our room. (From then on, whenever AB and I dis-

agreed on something, which was almost never, I simply pointed out that I couldn't possibly be wrong as I was a *GOLD card member*.) The photo to the right was the view from our balcony.

While on the main island, we did a dive with Jack's Dive Locker. What was remarkable about it, aside from the fact that it was my first free dive outside the certification class, was that part of the dive was done in the evening so that we could observe manta rays. The dive company put powerful spotlights on the ocean floor and the manta rays, complete with fifteen-foot wingspan, would swoop about scooping up the plankton that had been drawn to the light. As we were essentially sitting on the ocean floor, it meant the manta rays were doing this swooping *right over our heads*. It was quite amazing.

The only downside to the dive was that the water that day was quite rough and I hadn't taken my seasickness medicine early enough before we left the dock. As such, I felt nauseous when I wasn't in the water. This wouldn't have been such a big deal if it hadn't meant that when the sun went down and *the green flash* happened, I saw it but was too sick to video it. It was a shame. I'd have loved to have been able to share it with my students.

The next day, we rented a four-wheel drive Jeep and went to the beach. It wasn't just any beach, though. The family of J's ex-husband lived in the Kona area, so she had been there before and knew all the cool, out-of-the-way haunts. I had an absolute ball four-wheel driving over huge boulders and down through deep, steep gullies as we made our way to this green sand beach that was way off-road and that only the locals knew about. Being an adventurous soul when it comes to driving, the whole thing was all very, very, VERY cool and fun for me. AB seemed to enjoy it, also.

From Hawaii we flew to Maui. If I'd known about the Starwood perk, I'd have gotten a reservation at the Sheraton. Instead, we stayed at

the Hyatt Regency in Lahaina. While there, we took a boat to the island of Molokini, a small, partially intact volcanic crater that is just off the coast of Maui, and dove for a day. The water was spectacularly clear. We saw a huge, Great White shark maybe two-hundred yards from where we were positioned. He was just cruising along, not the slightest bit interested in us. It was a very fun experience seeing one in the wild.

We left Maui and flew to Kauai where we stayed at the Grand Hyatt Kauai Resort in Koloa on the south side of the island. I had visited this hotel the last time I was in Hawaii and remembered that its back yard, so to speak, was a giant water park that was a veritable wonderland (see photo). We were pretty well done with the scuba diving, but we had a delightful time in any case. Twelve days after we'd left LAX, we flew home.

There were a few weeks of peace while we just hung out together, then J's and I went to her math workshop in Utah. The location for this was a ski resort called Snowbird. It was summer so skiing was out, but there were cool hikes with great wildflowers available, and the ski village sported a "fun center." In the center, they had what is called an *Alpine Slide*.

An Alpine Slide resembles a luge track with wild, banked turns and all, except you aren't *sliding* down the courses, you are sitting, riding on a wheeled cart. The cart is interestingly designed. To make it go, you pull back on a stick at the cart's front. This rotates the front wheels down and into contact with the track and the cart takes off. To brake, you release the stick so that the wheels retract and sliding friction between the front of the cart and the track slows you down.

I decided this had the making of a great physics extra-credit problem (it just screamed *energy considerations*), so armed with my camera held in one hand I went the entire length of the ride (1300 feet with a drop of several hundred feet—quite steep, really) using the brake only three times (I probably got up to around 25 mph, max).

Upon arriving at the bottom, in what could best be described as a sort of a *Darwin Awards* moment, I decided I should be able to do the ride without using the brake at all. I tried. I failed.

Catapulting off the track about halfway down, I landed at high speed in the scrub and rocks that bordered the track and managed to road burn several fairly large sections of skin off my body (the photo of my wrist and forearm shows the aftermath of just a tiny bit of the overall damage as it stood *a week later*). I also managed to pull a hamstring in the process.

Interestingly, the resort had the foresight of having an ambulance stationed at the top of the run. The guys came down, picked me up (I stood up after the derailing, then sat down, then passed out). They went through the standard series of questions (the same I was taught to use as a WFR), decided I didn't have a head injury and cut me loose.

AB was not amused when she returned to the room to find me in bed looking like I'd tried to get chummy with a disk sander, but she was caring and willing to accept my idiocy as youthful exuberance (minus the youth part), which was good.

(I immortalized the first run on YouTube calling it "Fletch's Wild Ride With Questions." You can see it at https://youtu.be/I8TJpb4wvL4. The second was called "Fletch's Wild Ride With Crash." It is found at https://youtu.be/Q5uSnAmKzyA. In the second video, no physics teacher with half a brain was harmed, the implication being that I don't have half a brain.)

Ever the helpful soul, two days after the incident I got hold of the man who was in charge of the fun park. I explained what had happened, explained that I saw someone do the exact same thing at the exact same place the day after my accident, and ended with a description of how the track's banking was wrong for the turn I spun out on (given the speed one would have if the brakes were not used). I then casually mentioned that I was surprised, given the danger of the ride and the obvious frequency of mishaps, that they didn't have people sign statements to the effect that the ride was dangerous and if one got hurt, the rider wouldn't sue. He cheerfully replied, "Oh, we don't worry about lawsuits. We are a ski resort. We get sued all the time."

Aside for the fact that I was walking around like an old man, what with the pulled hamstring and all, and aside the fact that there wasn't a place on my body that hadn't been scuffed by my accident, I observed something interesting happen during that trip.

Until that point in time, all AB really wanted to do was be with me. Earlier that summer she had brought up our relationship and had said that she wanted to get married. She wasn't terribly happy with her situation on the east coast. I think she saw me as someone who was fun and caring and for whom it would be worth leaving that situation.

When we got to Utah, though, she kind of morphed from AB the cool girlfriend to AB the professor. She didn't really have a choice. She was expected to give a talk at the meeting and had to switch into academic mode to prepare for that, but the overall tone of our relationship changed as she took on that other role.

It was short-lived, but it was as though someone had flipped a switch.

I probably should take a moment here to say a little something more about AB as an academician. Upon graduation, most top seeded PhD's get Post Doc positions. These are individuals who, with a doctorate in their field, work with other Post Doc for a proscribed period of time (several years) at a university *at which they know they will not stay*. When the term of a Post Doc position is up, the Post Doc in question has to go out and try to find another Post Doc position or, better yet, a tenure track position of his or her own.

Although the lack of security sucks, what is nice about Post Doc positions is that they give the newly graduated PhD a chance to spend time with compatriots—with other Post Docs all of whom are VERY eager to publish. Collaboration is the key to a successful and rewarding Post Doc experience. And when Post Docs leave and, hopefully, get a tenure track position at some other university, most of them continue their association with their compatriots. In short, the bonds that are forged during the Post Doc experience can be important for later research.

AB never had that experience. She snagged a tenure track position right out of the gate. This was a situation most doctoral graduates would kill for, but it had its downside. It meant she never got to hang out with other, newly minted, academically hungry PhD's in her field. She was isolated and, more or less, on her own when it came to thinking up and doing research. (In fact, when I first met her she was trying to finish a paper with her graduate school advisor, a bigshot who had the habit of just vanishing when deadlines would come up—over a year-and-a-half period, she had to

ask for *three* extensions on their paper because he wasn't willing to take the few days it would have taken to do his part of the paper when it was due. There was also another guy she could work with that she knew when in graduate school, but in my opinion he was arrogant, didn't treat her very well and wasn't anywhere near the help he could have been.)

J's field was optimization. It is an area of math in which the researcher is supposed to generate ways to quickly solve, say, a thousand-equation system (that is, determine the solution for each of the thousand variables in the system). The following details how she was expected to accomplish this research.

—To begin with, she had to think up an approach to solving a system of equations that was both novel and faster than any of the already accepted approaches.

—Once she had an idea, she had to write computer code that modeled her approach.

—As she was dealing with extremely complex mathematical structures, there was always the possibility that one of the assumptions she had made along the way wasn't a good one. That meant if the code didn't work (and code never works at the start), it was either a dumb error made in the writing of the code or one of those assumptions was bad. While debugging, in other words, she was constantly looking to see if a problem was due to a typo, a logic error in the presentation of the code, or if there was a fundamental flaw in the thinking. This part of the work was very time consuming, always, and was a place where having Post Doc friends would have been very helpful.

—If the code worked, she used it on a set of problems and compared her results to results from competing approaches used on those same problems.

—If her approach compared favorably, then she was in a position to write a technical paper of anywhere from five to forty pages outlining the approach, the theory behind the approach and all of the supporting mathematics.

—Once done, she would submit the paper to whichever journal seems right. This, as a side point, seemed to be a step that really gave her a hard time. There are different levels of journals. Choose a journal that is too elite and you might not get accepted. Choose one that is beneath the paper and it might get published but you lose some of the academic kick the publication should have given your resume. Deciding where to send something is something one would usually discuss with one's Post Doc friends . . . again, the dearth of Post Doc friends coming back to bite her in the ass.

The point here is that AB was doing extremely high-level math, stuff I had never seen before and that very few people on the planet understood. My experience with her at that Utah workshop let me see the side of her that kicks into gear when she is wearing her professor's hat. She was a very different girl in that mode.

No matter, by the end of the summer, I was a man who was thoroughly content. I had spent a dream summer doing very fun things with a woman I liked very much and who was, as Chris at Poly had summarized, *very hot*, and I ended it by knocking off the WRF recert as planned. The entire three months had gone swimmingly.

At summer's end, it was time to face the music and have my mole removed. The operation was done around August 25 in Huntington Hospital. A week or so later when the good doctor called to tell me the results of the biopsy. He said matter of factly, "It's a level 5 melanoma."

Level 5 melanomas are melanomas that have put down roots about as deep as they possibly can go. The ones that popped up on my nose years earlier were level 2 (this had been good because it meant the little guys hadn't really gotten into the vascular part of the skin—the area where blood and lymph flow is intense and broken off bits of the melanoma can be carried to other parts of the body). The result of all of this was that during the first full week of classes, I was out having my melanoma tended to. I'd met with my kids the previous weeks for two days during which I *hadn't* told them what was going on (no reason to worry them—what was going to happen was going to happen). Instead, I wrote them an email over the weekend stating that I had a medical problem, would be out a week, and explaining how I expected them to proceed to prepare for the test they'd be having at the end of the week I was to be gone (in fact, four-fifths of the class earned 90% or better on that test—this led me to wonder whether I'd be met at the school gates by the school's head upon return and told that, maybe, it would be best for the kids if I just stayed away for the year).

On that Monday, I went to the Huntington Hospital and had an inch radius section of my scalp removed (that's two inches across for you non-math types). They also removed the four major lymph nodes that received drainage from the area of the original mole. They would biopsy those four nodes with the understanding that if they found cancer in any one of them, they'd then remove the fifteen or twenty secondary lymph nodes around the infected one the next day.

I remember coming out of the anesthetic and being delighted, through

the drug induced haze, to hear the nurses say I would be going home. I was with it enough to know that meant the four nodes were clear . . . except . . . it turned out that my jubilation was a little premature. Apparently, all but one was clear. The fourth was "undetermined." I was going to have to wait several days while the lab looked at it more closely. It was with mixed emotions that I went home that afternoon . . . no, early evening . . . no, nearly at midnight.

The next day, I emailed Jamie (the Upper School Head at the time) and said:

> Dying is for sissies. Real men stick around to endure the aftermath of surgery . . . like I didn't get out of the hospital until 11 pm last night because my urinary tract was on the blink and they wouldn't let me leave until I peed. I got home, went to bed, woke up at 1 am to pee and found that it took 30 minutes to complete the task (can you spell DRIP, DRIP, DRIP?). I went back to bed only to be awakened 45 minutes later needing to pee and to start the process over again. Although this was the pattern ALL NIGHT LONG, I'm feeling relatively refreshed this morning . . . and my urinary tract seems to have finally kicked back in.

Of course, I didn't mention that the day after the operation the back-up in my intestinal tract due to the anesthetics motivated my body to produce my first ever case of raging hemorrhoids. They were amazingly painful and not something I'd wish on anyone, yet I had them for two full days before AB suggested Preparation H (which worked remarkably well). In short, I really wasn't kidding when I wrote that dying was for wimps and that it takes a real man to endure surgery's aftermath.

Everything worked out, though, and the last node was clear. I had two full body scans over the next year and a half, and nothing seemed to be amiss. The only downside was that because a chunk of my scalp had been removed, hair would never grow in that area again (note the size of the swath in the photo). I would have to cover the area with hair from other parts of my head, which is to say, I would have to utilize what is called in the fashion world *a comb-over*. The consequence of all of this was that I found myself

with the distinction of being one of the few men in the country who, at the age of 63, had a full, healthy head of hair but still (at a particular point in my hair growth cycle) looked like he was wearing a toupee. NOT ATTRACTIVE, and who said karma doesn't have a sense of humor (oops . . . already established).

There was one observation I made from the episode that I probably should mention. As I'm sure you've figured out by now, since coming into contact with the Brothers I have developed a healthy disinclination to worry about death. Dying is something I will do on my own when life and karma dictates. Until then, I have bigger and better things to worry about. When it happens, it happens.

What I noticed this time around was that things are different when you have somebody who is counting on you to be around for a while. My end-of-summer experience was different from the other times I've faced death in that I had someone who loved me and wanted to share the next twenty years with me (that would be J). That made the situation considerably less about just me and considerably more difficult.

Again, karma giving me the opportunity to see how many people in the world live their lives on a daily basis.

Moving on: As the year proceeded, we took little trips here and there. In fact, in mid-October we went to San Diego to walk through a haunted Halloween Forest affair the city of San Diego puts on in one of their parks. The walk was spectacular. Every horror genre was presented with live actors playing the parts of crazy, chainsaw-wielding trailer-park residents to witches to vampires to werewolves to the living dead. As we walked, I noticed that she clung quite tightly to me, burying her head in my shoulder on several occasions. I was laughing uproariously throughout the walk because I find stuff like that artistically fun and amusing—this because I don't naturally empathize into the horror.

Unbeknownst to me, she was a bit psychically thin in the auric shell department: translation—she linked into thought-forms readily and was easily spooked big time by "horror" content in movies or haunted houses.

I didn't know any of this at the time, but it was a monument to how much she loved me that she was willing to go along with this little adventure in the first place. She apparently had nightmares for several nights after that weekend even though I'm certain she knew that would probably happen before the fact.

When we got home, I carved pumpkins as I always do for Hallow-

een—see first photo—and had a considerably less spooky front yard—that's AB adjusting a jack-o-lantern's top in the second photo—the halo was a camera artifact.)

January finally arrived and after Christmas, I took AB back to her university on the east coast. We hung out of several days, getting her car to run (it had been sitting for nearly a year) and just doing odds and ends. Then just before Poly resumed, I left and went back to Pasadena.[9]

We spent the year Skyping nightly, sometimes for upwards of two hours. I'd be in the kitchen making dinner or sitting on the bed working on my computer, and she'd be sitting at her dining room table, such as it was, working on her papers.

Beyond that first year, we were together for somewhere in the vicinity of an additional year and a half. It was a good time. At one point I joined her in Colorado to see her doctor, and we spent a very fun weekend at a very funky hotel in Boulder (the bears sculpture was in Vail, where we also visited). At one point she suggested the possibility of leaving her university job and coming to work at Poly.[10]

She (with me in tow) attended a summer conference in Vancouver, Canada, and afterward

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[9] She told me later that after she dropped me off at the airport and got back to her apartment, as she was entering, she felt an overpowering wave of sadness as she thought, "He's not here!" It was really quite touching.

[10] Debbie Reed, who was the School Head at the time, was sympathetic, but after an hour-long conversation between me and her she just couldn't see saying to Poly parents, "Oh, and we have a teacher who married one of his students, and now she has joined our faculty to teach here with him." Tongues would wag, and although those who knew us would probably be OK with it, people who didn't know us would draw conclusions that might be detrimental to the school. In short, as suckie as it was, Debbie said *no*. Interestingly, the man who got the job was a JPL engineer named Jack Prater, who is a great guy and at this point a very good friend.

we quite literally walked our luggage the two blocks to the docks and boarded a cruise ship bound for the Inward Passage. The idea was to go up and look at glaciers in Alaska.

The cruise got mixed reviews. She said at the time that it was more fun than she had expected, but she later pointed out that it was mainly populated by "old people." In fact, apparently, she was more than ready to disembark when the time came. Additionally, she didn't get to walk on a glacier, something I had done on my earlier trip (the photo is of me on that previous trip), because it was pouring rain on the appointed day and the helicopters wouldn't fly under those conditions. That was a bummer.

On the other hand, on Ketchikan I rented a Harley and we rode, with a group, the sixteen miles of roadway available to the residents of that town. That was very fun. The second photo is of the two of us in colorful riding togs at a rest stop along the way.

Things were getting tight on the tenure front. She needed eight published papers to be a shoe-in. She knew from passed applicants that she could skate by with only six. At the time she had only four, and one of those hadn't yet been accepted. She was running out of time.

We did enjoy a very pleasant Christmas at my house that year. I always had lots of decorations out in front (see the bottom photo), but that Christmas we also got a tree (AB particularly liked trees). We went out and selected

it from a lot nearby, went to Stats to buy decorations (including tinsel, which she thought made the tree look tacky but I wanted because that was the way we did it when I was a kid), then decorated it just like normal people (the photo shows the tree along with a very good shot of my fireplace roaring).

Going shopping, being out during "the season," creating the environment at home, it was all VERY FUN for me. Even the cat, Delphi, got into the picture (second photo). She liked playing with (and sometimes, apparently, eating) stringy things, so one night AB and I were treated to seeing the little twit walking across the bed with a strand of silvery colored tinsel hanging out of her ass. It was quite an amusing sight . . . and it brings to mind the cat.[11]

AB had an amazingly good sense of smell. This was at least part of the reason why she didn't like being around dogs. For her, dogs smell like . . . well . . . dogs. Cats were a different story. She had rarely been around them because she was allergic to them. With her autoimmune problem, though, and the fact that part of her medication was antihistamine based, she could now be around cats without an adverse reaction. This was a great boon for her as it gave her an opportunity to get to know my cat, to whom she took quite a shine. In fact, there was a point in our relationship when the first thing out of J's mouth when we would Skype was, "How is my cat?"

AB and the cat were constant companions when AB was here (the photo at the top of the next page is of the cat lying on her in superman position

[11] Minor note: If a cat eats a string, it can get tangled in their intestines and kill them. We were lucky. The tinsel was thin and narrow, so it passed through without a problem.

facing her—quite cute, really—while she convalesced from one of her surgeries . . . the picture was taken by her from her head looking down her body—notice the wrap on her left knee and the elevated foot). In fact, it would really irritate her (J) when I'd come into the room and the cat would get up off her lap and come over to me to be pet. She had gotten quite possessive of the cat and just a wee bit jealous of the cat's preference for moi (obviously ignoring the fact that I had been the cat's person for years before AB arrived).

It was during the last year or so that events, as they say, more or less conspired against us. If you will remember, AB needed, minimum, six published papers to insure tenure. Typically, there is a set number of years a professor has to accomplish this task before a tenure committee passes judgment. Her year of reckoning was originally scheduled to be the 2012-13 school year—the school year after the fabulous Christmas. That meant that after that Christmas, she needed to generate and publish two more papers between then and the next Christmas to insure her successful elevation. She *could* have asked for an extra year, given the fact that she had lost one year due to her medical problem and the medical leave she took due to that problem. She chose not to. I think she was so tired of the whole mess that she simply decided it was time to throw the dice and see whether karma really wanted her to succeed at that university or not.

After that happy Christmas, she went to work but was having trouble getting her papers to cooperate. She spent several months on an idea she thought was good only to find that someone beat her to the punch on publication. She spent several months on a problem that she thought she had wired only to realize that one of her assumptions was not good and the idea was bust. She spent some time on one problem, even talking to one of the Post Docs at her university about it. He said he didn't think it was a valid idea, then he published his own version of what she was talking about three months later (the guy was clearly an asshole). She wasn't having much luck with those last two papers.

AB was the kind of person who didn't do anything halfheartedly. She

wasn't sure she really wanted tenure, but by God, if she was going to go for it, she was going all in . . . which brings us to the first of her two problems with respect to us.

We would Skype nightly. We would make plans for vacations, Easter being the next one on the docket after the fabulous Christmas. It was all normal boyfriend/girlfriend stuff, except this was a time when that was the exact opposite of what she needed. When she was with me, either in person or on Skype, all she could think about was the fact that she wasn't doing her research. And when she was doing her research, all she could think about was the fact that she was ignoring me. She didn't try to make it so, but my presence had inadvertently become a big negative in every possible way.

The second problem was something she told me about after we broke up. In a nutshell, she said she didn't think I would be accepted at her university. This wasn't terribly surprising. The faculty at her school was made up primarily of younger people, and a lot of young people find the idea of an older guy with a younger gal repulsive (she didn't say this, but I know it is true—at a gut level, that kind of pairing does kind of fly in the face of evolutionary biology).[12]

Her decision to go for tenure meant she had to be very careful how she dealt with people in her department. They had to pass on her before the administration even had a chance to take a look at her. Having a really old boyfriend was going to look odd. She needed to *not* look odd. She also needed to be "around" as much as possible, so skipping out to spend summer vacations in California was no longer an option.

The long and short of it was that it began to look as though we weren't going to be able to make things work. After we broke up, we had a few points of contact, but in the end we went cold turkey.

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Additional note 1: When I was young, I used meditation to look at the way my brain works when I think. One of the things I noticed was that

[12] Also, I noticed a kind of academic snobbery when I was visiting her school and hob-nobbing with her friends, that seemed to exist in some of the younger post-docs. You got the feeling that if you didn't have a PhD yourself, you were viewed as not being quite up to snuff in their eyes. I presume this is the way they treated all the significant others on campus, or maybe it was just me. I noticed it also when she and I went up to the Stanford area that *4th of July week* during the first summer we were together, except in that case I think the guy in question kind of hoped that she and he might get together at some point . . . even though he was married . . . and I was simply in the way.

after a thought would pass through my mind, there would be a kind of echo that would occur. The thought wouldn't just happen, then depart. It was as though my brain would grab hold of it and mull the thought over after the fact before releasing it (this action clearly gets in the way if you are trying to *live in the moment*, which was what I was trying to do at the time). Of course, the echo would get snuffed out more quickly if things were happening that demanded my immediate attention and new thoughts were being introduced, but even then the echo would be there at least briefly.

As a macroscopic extension of this, I noticed early on that after I had experienced a break-up with a girlfriend, I'd be fine if there was something or someone I could think toward as a distraction . . . that often being another girl (even if only on the horizon). People call this *being on the rebound*, and if you are not particularly introspective, it isn't a very good way to live as it means you aren't taking time to understand what just happened and how you might change to make for a better experience next time around. If, on the other hand, you are like me and are constantly introspecting, having a distraction can be very useful. In the case of J, I had no distraction after we broke up, so she was just sort of *there* all the time. I wasn't sitting and stewing over her, but she was (as of a year after the break-up) still on my mind.

Additional note 2: People naturally assume that when a young woman becomes interested in an older man, it has to do with "daddy issues." In fact, that's the first thing Tom Moore, the owner of Sierra South and the individual who has run countless Poly outdoor education trips over the years, said when he found out about J.[13] And I am sure that there are lots of instances when women who have had a rocky relationship with an unloving father have craved the support of a surrogate, so more often than not this may well be the case. But Kay was a perfectly well-balanced young woman with a perfectly good relationship with her father, and she fell in love with and married her professor at Occidental College, a guy who was twice her age. Sometimes running into someone who is knowledgeable about the world and thoughtful in ways that younger men often aren't can be very seductive, especially if there is a karmic connection between the two individuals.

I have no idea if there was a karmic connection between AB and me. I have no idea what her thoughts were about me at the beginning of our time together. I will say that when we first got together, she was at a low

[13] Having nothing to do with J, there is a very fun story I'll tell about Tom at the end of this chapter.

point in her life and she needed someone who would be supportive beyond the norm, which I was, but I seriously doubt that her dad had anything to do with anything.

As for me, I suspected from the beginning that the union would not last (I'd have been delighted if it had, but common sense suggested otherwise). I had no problem being with a younger woman, but every once in a while I'd catch a glimpse of the two of us together in a mirror and think, "Really?"

I had obliquely asked karma for a full, romantic experience with someone I found attractive (read this youngish and pretty and well-built and fun), and that's exactly what karma provided. I didn't go actively looking for the experience, she just kind of landed in my lap. So on my end I think there was some karma there. There was no reason for it to go on forever, though, especially if she was going to have someone in her life that she could grow old with (a common hope of young people looking for a mate). I got to see in the experience what I had hoped for. I felt fortunate that it lasted as long as it did.

And then there was the issue of the melanoma. I had no idea why karma wanted me to keep breathing, but without a girlfriend to root around in my relatively thick, black hair, that melanoma would never have been found. At the time, I was pretty adamant about not wanting to date an "old woman" (this will be amusingly highlighted when you read the ad I submitted to a dating service, at the urging of Jill, in the "Pranks I Have Known" chapter). The only females I was interested in considering were younger than me (I know, a real cloddish attitude—if it makes you feel any better, after AB and I broke up I ran into several older woman I found interesting and attractive and for whom I'd have been happy to date if they'd been amenable). AB was clearly younger, and without her presence in my life (or someone comparable), the melanoma would never have been found and I'd be dead right now (as in, when I'm writing this) and you'd be reading this autobiography earlier than "now" and without this chapter.

It seems that the episode was kind of important on several levels.

Parting shot: Everything has a beginning, a middle and an end. Aside from the break-up, which sucked, my time with AB was a pure delight. I had the opportunity to do stuff I know couples do all the time, but that I had never done or hadn't done in fifty years. I had the thrill of being awake to the watch a focused karma getting us together, letting us flow for a while, then steering us apart when it was time. And to top it all off, we parted without my kicking up too much karmic dust in the process.

If I had to summarize the experience in a single phrase, I would have to say it was *perfectly wonderful*.

At least, that was how it was for me . . .

_____x_____

[There is one more thing I want to talk about that is going to appear to have nothing to do with J, except by the end you will see that it has everything to do with J. As is often the case, this is going to take a preamble that will meander some. Stick with me.]

I can't tell you the number of times that karma has stepped in at just the right moment to change my path in life. Example: When I first started teaching (this was before I'd even thought about getting a Master's Degree in Physics), I worked for Los Angeles City Schools as a long-term substitute at San Fernando High School out in the valley. This was an inner-city school of 4000 students with a gang presence. The school's average reading level was the fourth grade. Their most advanced academic science class was high school chemistry. Half of a student's grade was determined by *attendance*. If you passed by the baseball field during "nutrition" period, you would see upwards of 2000 students out smoking on the field, and the year before I arrived a bunch of guys were sent to Juvenile Detention for trying to rape one of the female gym teachers. It was, in short, a very intense place for a teacher.

Because it wasn't easy to get teachers to teach at the school, and because I was an able-bodied male, and because I had accepted a classroom that was way out away from the main buildings in the bungalows (a place where they really didn't want to put female teachers), I was being sized up by the administration for a full-time position at the school. It wasn't something I was terribly excited about doing (at the end of the year when the teachers gathered in a faculty meeting to say goodbye to people who were leaving, one departee said, "Leaving San Fernando High School is kind of like watching your mother-in-law drive over a cliff in your Cadillac"), but it was a secure, full-time job and that was something I hadn't had to date.

To get departmental clearance for the offer, the Department Chair had to sit in on one of my classes. The chair was a very pretty, young woman who I very nearly dated (we were chummy), so I'm sure she was expecting the class to go without a hitch. Unfortunately, the day she showed up was the day I had set aside to talk about drugs.

One of the things I wanted to stress during the class was how danger-

ous drugs were to one's Being and psyche. I knew that if I stood up at the front of the room and pontificated, the kids wouldn't listen to a word I was saying. So because I needed something that would give me cred with the kids, when one student put his hand up and asked, "Have you ever used drugs?", I said *yes*. This was not something you would expect a teacher to say. I followed the admission by saying it had been a short-lived experience and that I was no longer so engaged, but that I had experimented when I was younger and knew what I was talking about.

I don't remember what-all happened during the rest of the class, but it didn't matter. That reply was so appalling to the Department Head that she made up her mind then and there that I had to go.

If I had been offered the job, I probably would have taken it. And if that had happened, I probably wouldn't have ended up at Poly. Except Poly is where I was meant to be, so karma led both me and her into that fated lecture, and the ultimate consequence was that I was set free to go in another direction.

Karma has, on occasion, stepped in in other ways, throwing roads blocks up, for example, when I've tried to talk to people about stuff they should not be privy to, given their life-situation.[14] I would be in a private conversation with someone in distress, and it would pass through my mind that it might be to their advantage to know more about what a human being is, or how karma works, or about the inner worlds, or about how the mechanisms of consciousness work, or about death, and just as I would begin to broach the topic, someone would arrives out of the blue and joins the conversation and the intimacy of the discussion would evaporate and the opportunity would be gone. Or I'd try to make plans with someone to find a time when we might talk (this has happened a few times with a particular

[14] This kind of thing *just happened*. I went to a funeral for a Poly alum and ran into (and sat with) Alice Cotti this last Saturday. We didn't talk much (it was a funeral), but Alice was, for years, the preeminent college counselor at Poly and I knew her fairly well. She went on to become the principle at Notre Dame High School in L.A. I knew she was a good Catholic, but as we sat together during the service I decided to turn her on to the *Indigenous People's* translation of the *New Testament* (I talked about it in Volume 1). I asked to borrow a pen from her so I could write a note to that effect, a note I intended to give her just before leaving at the end, but when she and the rest of the church went up to the front for communion (they had communion during the service, which I found odd at a funeral, but heh, what did I know), she never came back. She apparently ran into someone else she knew and stayed and sat with them for the remainder of the service. This was clearly a situation in which I wasn't supposed to go mucking around with her beliefs and her world. I don't know why, but it was pretty clear (I could actually *feel* it) that I wasn't supposed to give her that note. To say the least, I didn't go out of my way to find her afterward . . .

LGBQ individual I'm friends with at Poly), and if my specific intent was to get into a conversation about stuff that might lighten their load, so to speak, that individual would suddenly become distracted with other things or other people or whatever, and that meeting would either not materialize or end up being canceled.

I've come to know, in short, that there are people in life who are not meant to be given knowledge. One never knows who those people might be, but karma is quite capable of molding circumstances.

Why am I talking about this? Because this book has the potential to intervene in people's lives. I'm not saying that people will be swept away by reading it, but there will be some for whom the book will click, and consequently life will end up looking different to them. There are others, on the other hand, who are not meant to come into contact with the book at all. So how might karma steer them away? The next section addresses that question.

_____x_____

[A little more background . . .]

If you will remember, I said there was a female teacher at Poly who said "the students" found what I was doing with AB salacious when, in fact, I suspected that sentiment may have more closely aligned with her own feelings about the matter. This was a woman who never really warmed to me over the years I knew her.[15]

Her job put her in contact with a fairly large portion of our student body. She was very good at what she did, but she had a propensity to form a kind of inner circle of favorites around her every year. For those outside the circle, she could be quite caustic (I witnessed her absolutely savage a girl on the senior trip one year while standing with a bunch of male athletes—the girl's transgression was to ask to put trash in the faculty trash bag, the objection being that students should be filling up their own bags). This was a brilliant individual in her discipline, but like all of us, she was

[15] She was also someone I don't think karma wanted me to impress. She came to one of my E.Phil meetings early on in my tenure at Poly, and I did *horribly*. There was normally a flow to my presentations. It wasn't there when she was in attendance. It was almost as though I was meant to look lame (which I did). It was pretty obvious in looking back that it was not karmically right for me to *light her up* as I often did with my students. I'm certain she left that meeting thinking I had nothing of use to offer to *anyone*.

uneven in some of her responses to life.[16]

_____x_____

[The story . . .]

A year or two after AB and I broke up, one of the principles in this woman's circle-of-favorites took my Honors Physics class. The gal was dynamite-smart, but for reasons that weren't immediately obvious she came into the course with an epic chip on her shoulder. The contempt she projected at me from the start was palpable.

If that had been the only instance of a student taking off after me in this uncharacteristically aggressive way, I'd have chalked it up to life in the big city. It wasn't. There were other cases when a female would come into one of my classes during that era, clearly predisposed. That, or she would start out OK, then suddenly switch to peevishness.

Before I figured out what was happening, this seemed very odd to me. My general demeanor with students, both boys and girls, was always to try to keep things light, friendly and fun, and most students responded to that well. But during the era in question, as I said, I'd have a girl come into one of my classes, start the year out happy, then just like a flipped switch become distant, guarded and, in some cases, downright hostile. It was as though someone had somehow poisoned her mind against me.

I may be affording this teacher way too much credit, but given her propensity to gossip (one of the ways she bonded with her crew) and the fact that all of the girls who exhibited this kind of behavior were a part of her in-crowd, I'm pretty sure she or one of her clan had a hand in the transformations. To be fair, it may have been that they thought they were protecting their friends from someone they deemed creepy . . . which is to say, me . . . , but the way it was done was itself kind of creepy. It seemed to be all gossip, all innuendo.

For the three or four years over which this kind of behavior was evi-

[16] As an aside, somewhere around the year 2004, three of the many pillars of Poly's academic community were seriously nudged. Dick Sisley left in a huff because John Fay stopped using Dick's math text in Poly's math program (the book was so mathematically rigorous and scholarly, teachers who used the book had to literally translate it for their students because the kids couldn't make hide nor hair out of it); I was banned (after twenty-five or so years of faithful service) from teaching AP Physics after having had a serious disagreement with the Administration over how we should be dealing with seniors and AP tests; and a Poly family nearly sued the school over the way the woman in question had treated their child. It was a hell of a year for Poly icons.

dent, the scenario went (I think) something like this. A new female physics student would be talking either to the teacher or someone in the group. She would say something to the effect of, "I'm enjoying my Honors Physics class; Mr. Fletcher seems pretty cool," to which she would be told, "Well, you know he dates his students . . . "

I can't imagine a more gross, icky thought for a seventeen or eighteen-year-old girl than to believe that her teacher, a very old man, might be date someone *just like herself*. That wasn't, of course, an accurate or fair representation of what had happened. AB was an alum in her mid-to-late thirties when we were together. The situation was singular in the sense that I had never done anything like that before or since. My students are 18. I would never date someone that age, yet none of that was suggested by the phrase "he dates his students." It's no wonder I had girls suddenly become wary of me. Hell, *I'd* be wary of me if I was a kid and ran into something like that.

The bottom line was that with no one to defend me, I come across looking like a giant douche.

This had far-reaching consequences. During this period, Jen, our school head, told me there were in-coming senior students (females) who requested that they not have me as their physics teacher. Why? According to Jen, each student said she didn't feel comfortable around me *for undisclosed reasons*. Believe me, if I had done or said anything overtly inappropriate, Jen would have climbed down my throat. So what was going on? Me thinks gossip, allowed to flourish unchecked, initially inflamed by that teacher.

As I said at the beginning of this section, the teacher may have thought she was protecting her people from a creep, but I think there was more going on underneath the surface. I believe, given the way the teacher treated me throughout our time together, that there was some kind of old, tangled karma between us. If so, I do hope it has run its course.

_____x_____

[There's more . . .]

It's 2016 and AB happened long ago. School has just begun and I'm starting my 40th year. Although my physical form has rallied to its old self with the beginning of classes and the normal school-year routine, and although I was active with summer projects, my body during the summer

acted as though it thought I'd retired and it was time to be old. I was feeling aches, pains and diminished stamina. I can see why men in the old days regularly used to retire, then die within a year or two.

I mention this because with my body acting up as it was, I spent more time reflecting upon my life during the summer (not that I haven't been doing that throughout my life and, for that matter, in this book!). And as I did, something the Brothers once said popped into my head. It was, "For the student to grow, the teacher must die."

It was a pointed way of saying that although a teacher can bring light to a student, once the lamp is lit the student must then do something useful with it without guidance from the teacher. It is the way people grow. There were students in my E.Phil course over the years who were profoundly affected by the things I talked about during that time. How could they not be? They were coming into contact with the energies of the Brothers, even if only presented by this very imperfect vessel. And because I've been told, I know that some of those students made serious decisions about the way they would live their life based on what they saw in me and heard in that class.

The rub is that karma and life don't want people making good decisions based on the following of a religion, or mandate, or role model. They want people making good decisions because they have decided within the confines of their own thinking that that is the only way they *can* act. In other words, at some point, the life jacket had to come off and each individual has to swim on his or her own.

I wondered for years how my presence in the lives of these students was going to be diminished. Clearly, dying would do the job, but it wouldn't disconnect me in the minds of my students. My experience with J, as reasonable and natural as it seemed at the time, may have been the wedge karma contrived to do the trick. It wasn't obvious to me at the time, as I said, but that action put my former students in an interesting position, because there I was, doing something they would normally have condemned mightily in any other individual.

To wit: Rick Thompson was a Poly alum (Rick's class gave me my first *Teacher Appreciation Award*). After getting a law degree, he came back to Poly to teach math for a while. He was a great guy, and he and I and a bunch of the science folks would occasionally go out on Friday afternoons to TGIF (I don't drink, but "water with bubbles" was always available). During one of our afternoon stints, referring to my relationship with J, he said, "You know, there are a lot of people in my class who would be very surprised to know about what you are doing . . . really." I

acknowledged the sentiment by saying, “I know” even though it wasn’t clear if he was pointing to the fact that I was dating in general, or that my girlfriend was thirty-years younger than my old, miserable bones, or that she had been in one of my physics classes twenty years earlier. There was something amiss, though, as far as he was concerned, and he was saying something about it, which was perfectly OK.

The point is, what I was able to do for my E.Phil students was a karmic giftie that was rightfully theirs. But karma required an expiration date on my influence. When it was time for me to “die in the eyes of my people,” karma moved (remember, AB was just sort of plopped down in my lap, even though it was to my delight) and I ended up having a seemingly outrageous affair with, from the perspective of the outside world, a completely inappropriate girlfriend.

This negates none of what the Brothers taught me, or what I’ve talked about in this book, or who I am. It was just karma moving appropriately.[17]

[17] And now, that story I promised about Tom (I was told this story in the 1990's, so I may have some of the facts wrong—a good approximation of what happened follows, though, so here goes). In the 1980's (I think), Tom's sister fell in love with and married a man who was the Minister of Defense of a South American country (I don't remember which). She had two children with the man before their marriage went south. He was willing to give her a divorce, allowing her to go back to the United States if she wanted, but he wasn't willing to allow her to take her children with her. The country's laws concerning divorce stipulated that children were automatically awarded to the father. He wasn't willing to budge on the issue and because she wasn't willing to leave her children behind, she was stuck.

I don't know how she and Tom communicated, but the two of them hatched a plan. Every year, the country had a three-day independence-day celebration. The man, being a big-wig, was expected to attend the festivities in the capital. He always went alone, departed on Friday morning of the three-day holiday.

That year, after he left, she told the servants she would be visiting a friend for the weekend. She donned a disguise, gathered her children and got on a bus bound for a border town fourteen-hours away. There was a bridge at the town that connected the country to its neighbor. Tom was supposed to be at the bridge on Saturday afternoon to pick her up. If things worked out, the group would hot-foot it back to the United States.

Because the father had the ability to literally close the country's borders, she needed to get to the rendezvous point before he got home on Sunday. Tom was at the bridge on Saturday, but she never showed. Tom did the only thing he could do. He waited. No sister. Finally, after waiting at the bridge for several hours on Sunday morning, he saw her and the kids coming crossing. The group flew out to the United States, and that was that.

How's that for a harrowing tale?

Chapter 37

Pranks and Amusements I Have Known (Part 1)

[I was the head of Poly's Science Department for about five years toward the start of my stay there. One fine spring afternoon, we were having a meeting in what was at the time the Science Department's library.[1] During the course of the conversation, I was trying to point out that we had plenty of room to store reference books in our little library. What I said was, "We have plenty of space—we can use this room as a book suppository."

For about a half beat there was dead silence in the room. Then I realized what I had said and broke up with the entire department joining in. We must have laughed for a good twenty-seconds. It was definitely one of my finer moments.

I do like to laugh, and laughing at myself is as good a source as any. I was often the instigator of pranks in college, and when I got to Poly I continued the tradition by joking around with my students and colleagues. And when someone would pull a good one on me, I was (and am) more than happy to acknowledge *the get* and proffer deserved kudos.

I have to admit that I have, on occasion and inadvertently, been an insensitive asshole with my pranks, but it has never been mean-spirited (OK, well, there was the garlic incident and that Chi Omega pledge who lied to me to get me to break a date—that was a bit mean spirited . . . then, again, she kind-of deserve it). On the whole, though, being fun-loving and finding amusement where it was to be had has always been something I have held in high regard.

The next two chapters are devoted to pranks and amusements. I've already mentioned two prank-like occurrences that have happened to

[1] This was in what was the old Mudd Science building. Since then, it has been remodeled making more room in some of the classrooms, then torn down completely making way for the New Poly Building, a three-story complex that currently houses the sciences, the math department and, on the top floor, the new hang-out on campus, the school's library.

me—the garlic incident and the professor who offered to pass me in her upper-division math class—a class I was failing—if I would only agree to never take another class from her again (it wasn't a prank, but you gotta admit, stuff like that is kind-of a chuckle). I'm not done talking about the Brothers, but for now, we're talking funny. In no particular order . . .]

_____x_____

[Dating . . . or not!]

Since Kay died, especially given the direction my compatriots (Cathy, Brian, Nic, etc.) have taken, I have given some thought to the possibility of dating (this was written in the early 2000s). And in fact, Jill and Patty at school have both recently been agitating for me to try a *dating service* (an idea I abhor for all sorts of reasons).

During that period, we would occasionally talk about the good and the bad of such a prospect. After listening to one particularly amusing dating-service horror story from Jill in which she lambasted a schmuck she'd met for misrepresenting himself on his profile, I pointed out that most guys *can't tell the truth* on profiles, not the *whole* truth, because if they did, no woman would respond to their advances.

The ladies disagreed. They claimed, "What matters isn't what a guy looks like (for instance), it's the kind of person he is."

At that point, I believe I pulled the old *cough-as-I-say-BULLSHIT* move, having been blow off in my younger days by more than one pretty woman in bars or at dances where the only inkling the sweet young thing had concerning me was my looks. These ladies (my colleagues) were obviously unaware of the norm for their own sex.[2]

To make my point, I wrote and posted the following profile on the dating service Match.com. I tried to make it as appealing as possible, but under the guise of being completely honest I incorporated into the piece an admission to at least some of the falsehoods guys are accused of fronting in these things (I admitted, for instance, to having fudged my age on the application—in fact, I said I was born in 1959 making me 48 instead of 1948 making me 59). If that wasn't enough to make my case, I included a

[2] In fact, that observation wasn't really fair. Anyone who has had a good-looking boy or girlfriend who has additionally been vapid or mean or otherwise unpleasant to be around, knows that for a long-term relationship, there has to be something other than looks involved. The problem with dating services is that all you really have available to you are looks, and in that arena, the kind of person one really is doesn't hold much water . . .

devastating if not slightly exaggerated appraisal of my looks.

For your amusement, what I wrote in this "totally truthful" offering is below:

SIDE NOTE: Years later, I had a particularly bright, vocal, iconoclastic Advisee Group at Poly. They were all seniors, so they were all 17 or 18 years of age. We got into a conversation one Advisee Meeting about what women want in a man (the kids instigated the discussion), and how men might go about appearing attractive to women. After the usual claims of women wanting men who were substantive but not necessarily good looking, I pulled out the piece you are about to read and read it to them. It was right at the end of the period, and when I got done there was stunned silence. Having no time to review and discuss what they had just heard, I had to wait a week before reminding them that the whole idea behind the piece was to prove that men can't be truthful on forms like that or women would never give them a chance. It made me realize, though, that anyone reading this might get similarly sidetracked, so at several points throughout I'm going to break the thread and insert commentary. Look for it. It should be of help. Anyway, what I wrote follows.

> Have a finely honed sense of humor? Read on! I can assure you, everything you are about to read is true.
>
> Jill, a friend, evaluated a recent match.com date. He was "fatter, balder, grayer and older" than his profile suggested.
>
> I'm dedicating this wickedly, excruciatingly truthful profile to Jill.
>
> To begin with, I lied about my age (look at the picture!). I have no desire to date someone of my own generation, so I lied. In fact, my preference is to hook up with a woman in her early to mid-forties. I wouldn't balk at someone in her thirties, but I'd hate to sound more delusional than I already am, so I won't go there.

[How many old guys out there have secret dreams of dating someone outrageously young (comparatively)? I suspect a lot!]

> I teach physics in a private high school. I've written several physics texts, a book on eastern philosophy and an autobiography that you, too, can read *after I'm*

dead.

I like to surf, ski, white water kayak, rock climb, boulder, mountain bike, backpack and day hike. (I also like to read). I recently damaged the arch in my foot playing football with a bunch of freshmen on asphalt, *barefoot*, which is to say that the phrase, "Dumb as a door," is occasionally used with respect to me.

I have a cat that adopted me several years ago. I've never met a dog I haven't tried to pet. I've seen 55 Grizzly bears in Alaska in one day (McNeil Falls is quite something during salmon season), and I have pet both a live mountain lion (this happened at midnight on New Year's Eve in a market parking lot in Telluride, Colorado) and a tiger cub (this happened at school). I've traveled to India, Egypt, Greece, Italy, France, Scotland, England, Canada, Mexico and a fair number of national parks and cities in the U.S.

I was engaged to be married to an art major while in college. I'd have made a lousy husband at the time and it fell through. My after-college life saw me following what might best be described as a spiritual path, so I have been celibate for the last thirty years. I am *not* socially inept—an odd thing to mention but, given my background, a not-so-irrelevant point.

I own my own house and have no debts or money worries. I own two cars but my most common mode of transport is a bicycle, which I ride to school daily . . . even in the rain. I am a lacto-ovo vegetarian, don't drink, smoke or do drugs.

Sound good? Unfortunately, I have two problems.

First, it would seem that the gods have conspired to make me an ugly man. I'm not talking casually ugly. I'm talking *ugly as a post*. My enclosed pictures, which are current, are deceptive in that they view me face-on and with a hat. From the side without the hat, you'd see a full head of brown hair mounted atop a cantered forehead that would undoubtedly have made women of the Cro-Magnon period swoon. My sloping forehead doesn't bother me much, but it might bother you.

[NOTE: This is where it went south for my female advisees. The girls were horrified that I was admitting to being less than attractive. It meant, as they told me a week later when we finally had time to rehash the piece, that I didn't have confidence in myself and was sounding very pathetic as a consequence. I pointed out that the whole idea behind the exercise was to prove that *even if* a guy had pretty cool qualifications (was financially stable, owned his own house, was smart, had written books, was athletic, was widely traveled, had a sense of humor as evident in the way the piece was written, all things you'd expect a female to appreciate in a male they might want to spend the rest of their life with), not being good looking was a deal-breaker. In fact, what I wrote wasn't true. I'm not handsome, but neither do children run screaming down the street after having come into contact with me. That wasn't the point. If a female participant of Match.com was looking for someone to date, found a guy with primo qualifications but who was ugly, how would she respond? That was the test.

Continuing (though I'd suggest you re-read the previous two paragraphs, just to get back into the flow of the entry).]

> You might think that this rather prominent glitch would make me humble when it comes to wants and desires with respect to female companionship, which brings me to my second problem.
>
> It turns out that I was rather badly scarred in a psychological sense by an *inexplicable run of college-era successes* with beautiful, sexy females, which has left me in the somewhat debilitated state of wanting to be in the company of a youngish (relatively speaking), attractive, well-put-together, intelligent, more or less baggage-less female with a sense of humor.

[Again, how many guys out there hope for stuff like this? As before, I suspect a lot!]

> Given my dearth of good looks, and given the tendency of most females to screen their contacts using a "cuteness" scale, the chances that I'd be attracted to any woman who might look at me from the side and think, "Yummy" are, like, zero. (Groucho Marx once said, "I wouldn't *join* a country club that would have me as a

member." In honor of Groucho, I sometimes think, "I wouldn't *date* a woman who would have me as a boyfriend.")

Bottom line: If you happened to be one of the few generally attractive women in the country who would be willing to be seen with a guy who could, by comparison, make Gandhi look like a stud, while additionally *not* requiring that the guy be the head of a major motion picture studio, or if you are generally attractive and just plain blind as a bat, I'd like to hear from you.

If no one of that ilk exists out there, I am equally happy to continue my life as a solitary soul. After all, life could be worse. I could be a physics teacher . . . No, wait, I *am* a physics teacher...

Remembering that my original hypothesis was that if a man was totally honest on these sites, no woman would give them the time of day, it shouldn't be surprising to find that I didn't get a single taker from the entry. I did have fun writing up the profile, though.

x

[A Fraternity Brother and the Escalating Prank]

When I was at ASU, it was not uncommon for me to study after dinner. After studying, it was equally probable that I and a couple of my fraternity brothers would go out and get something to eat.[3]

One night, a bunch of us went to a little walk-up hamburger stand that was close to campus. While we were waiting for our orders, we engaged in the usual buddy-banter in which everyone was cleverly putting everyone else down. The food arrived and we paid for it. As we were about to leave, I took another verbal potshot at one of my friends and he, understandably, potshotted back at me.

In mock outrage, I grabbed one of the plastic catsup bottles that was on the outdoor counter, squeezed it, and shot a stream of catsup at the guy. I aimed to miss—I really wasn't trying to goop his clothes—but that probably wasn't evident as he grabbed a mustard bottle and shot back at me. He *wasn't* aiming to miss. I dodged his salvo successfully, but it got my

[3] One of my favorite places was Taco Bell where you could get a beef taco for $.20 (five for a dollar). Ah, those were the days (at least for meat eaters).

competitive instincts riled and I retaliated with a shot that hit him squarely in the chest. He took off after me with his bottle but wasn't able to land a single hit.[4] I continued to land shots on him as I ran, though, dousing him thoroughly. By the time the dust had settled and he gave up trying to catch me, he was soaked in red and I was still unscathed.

Everyone piled into cars and drove back to the fraternity house. I hung out a bit in the living room of the house (it was Christmas time and there was eggnog available for the taking), then went up to my room. When I got there, I found my door wide open with the bed covers thrown back and mustard squirted all over the sheets. The prank had escalated.

I could have gone down to the living room where I knew my friend was and made a fuss, but I decided there was a better way to deal with the intrusion. The president of the fraternity had keys to everything, so I told him I'd locked myself out of my room and asked if I could borrow his master key. He gave me an enormous wad of keys on a ring and I left, supposedly to open up my room. When I returned the ring, he didn't notice that I'd lifted his house pass key.

I set my alarm for 3:00 AM and went to bed. When the alarm went off, I got up, went into the communal bathroom down the hall, picked one of the 50-gallon garbage cans that had trash in it, and filled it about a third of the way full of water. I dragged the container down the hallway to my friend's room, used the pass key to open the door, stepped into the dark room and dumped the entire brew onto him and his bed . . . or so I thought.

Indeed, I did dump the water, but it turned out that he wasn't in bed (it was dark—I was stepping from a lit hallway into a darkened room and couldn't see much aside from the outline of the bed). I found out the next day that he had passed out in the living room while drinking the spiked eggnog, so he never *got* to bed that night.

The next day, he found my handiwork and came looking for me. We chatted amiably for a while, decided that the next step in the escalation would be for him to get a gun and shoot me, decided that that might be going just a bit too far and decided to call a truce, which is what we did.

Life in the fraternity house was never dull.

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[4] I was not really fast, but I was very quick when I was in college, so much so that there were very few amongst the intramural football crowd, which counted All-CIF and All-State players from a ton of states, who could corner me.

[Lights everywhere . . .]

Twice a year, I go on an outdoor class-trip with students from Poly (over 90 over the last forty-six years). This story took place during the early days of my time at Poly and was written in the mid 2000's.

Five or so weeks into the first quarter every year, the freshmen and sophomores split up into groups of, maybe, fifteen to twenty, and go back-packing or mountain biking or surfing or rock climbing or ocean sailing, depending upon the trip they choose.[5] The juniors during that same period do 60-miles of canoeing down a flat-water portion of the Green River in Utah.[6] The seniors use the time to visit colleges if they are so inclined.

In the spring, just before graduation, the seniors have their class trip at the Kern River in the Southern Sierras. During the trip, they can choose from several activities—whitewater kayaking, whitewater rafting, hiking, paddleboarding on Lake Isabella, rock climbing and, over the last few years, horseback riding.

Aside from graduation itself, the senior trip is one of the last times Poly seniors get together as a whole group. It is very fun.

The kids set up a base camp outside Kernville. Every day they are bussed into town to the Sierra South outfitting store only to depart for the day's activities. In the evenings, the kids cook their food in food groups of their own choosing, then sit around and talk or play cards or volleyball or Cube or Mafia or Trivial Pursuit, or just enjoy a campfire.[7]

Because I've been doing the trip since its inception, I have a favorite spot I normally stake out for sleeping.[8] It is right next to the make-shift volleyball court (or, at least, where the court used to be set up). I don't sleep in a tent, it's just my sleeping pad, sleeping bag and my mosquito-net mini-tent. It is close enough to the river so the sound of the crashing, rushing water isn't deafening but is still loud. It is a great place to sleep or simply lie back and enjoy the stars on moonless nights. It is a very cool way to drift off.

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5 It's 2019, and the program is about to change for the umpteenth time.

6 This trip has recently been replaced by a white-water rafting trip down the Klamath River in Oregon. White-water is cool, but this is kind of too bad as the Green River had knee deep mud on its shoreline that was super fine (like coal cream), so the mud fights were epic.

7 What they aren't allowed to do is to have electronic devices like boom boxes for entertainment.

8 In fact, for the last few years I've only been able to go for a day or two as I've had to leave early to go grade AP tests.

For the first few years, I used a backpack for my gear (it was a top-loading, hard-framed pack I borrowed from Brian). When there, I'd set the pack up against a rock not five feet from my sleeping pad.

The third year we did the trip, I noticed on the morning of the second day that someone had gotten into the pack and taken some of the corn nuts I had sequestered there. I had had experience with kids doing harmless pranks—hiding my sleeping bag or putting the bag up in a tree or putting small boulders in the bag—so I just figured it was some kid being cute.

That night, I went to bed around 11:00 PM. About five minutes after slipping into my bag, I heard noises coming from the area around my backpack. I rolled onto my side and turned my flashlight on. There, looking just a little bit startled at the light shining in his face, was a very large skunk. He was standing next to my bag on his back paws with one of his short little skunky arms jammed down through the opening at the top of the pack. Evidently, he had been the *corn nut* intruder from the previous evening.

I didn't do anything particularly provocative, but the skunk decided on his own that it was time to leave, so he casually pulled his paw out of my pack and lumbered off. I lay back down on my back with a smile on my lips. Shortly thereafter, I went to sleep.

The next thing I knew, something really big grabbed my feet at the bottom of my sleeping bag and yanked them back and forth several times rather violently. The first thing that shot through my somewhat muddled mind was, "Damn, that is one seriously strong, seriously pissed off skunk."

As I struggled to sit up in my bag, I remember smelling something sweet. I finally got upright and found, all around me, tiny, fuzzy points of light (they were fuzzy because I hadn't yet put on my glasses). They reminded me of fairy lights, but they were not moving. Once I got my glasses on, I saw, maybe, a hundred of these tiny lights on sticks, each spaced a few inches apart, making a perfect oval around me. It was incredible.

What had happened was that one of the kids had brought several boxes of sandal-wood incense on the trip. Nobody could think of anything to do with the stuff, so they decided to ring my sleeping bag with the individual sticks, light them, then wake me up. (It had nothing to do with the skunk—its earlier presence had just been a coincidence.)

Sitting there in the midst of all that light and smelling the sandalwood was heaven. I enjoyed the effect for, maybe, half a minute, then at the top of my lungs and over the cacophony of the river I bellowed, "Whoever you are, thank you. This is VERY, VERY COOL!"

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[Unmentionables everywhere . . .]

On class trips, I always slept outside with a tent close by should I need cover.[9] That meant I was always vulnerable to hungry critters munching on me as I slept (small, innocuous critters like mosquitoes, not big, obviously more concerning critters like bears). To get around that problem, I used a mosquito tent (these are made of a see-through fabric over a collapsible frame that, when constructed, arches over the top part of a sleeping bag where your head is). It was very useful, especially in warm weather when you would like to have your head outside your mummy sack but would not like to be eaten alive at sunrise. The point is, when you'd wake up under one of these tents, you could see the sky through the netting.

One year on the senior trip at the Kern River, I woke up one morning and realized I couldn't see out because there was stuff hanging all over the netting. It turned out that a bunch of the guys had borrowed unmentionables from a bunch of the girls, and they hung the panties and bras all over the structure. It was apparently a very spur-of-the-moment thing, but it was definitely different and quite an amusing thing to wake up to.

(I told this story to a bunch of Senior Trip chaperones in 2024, all of whom happened to be women, and was met with disapproving silence. As far as I was concerned, it was just a harmless prank, but as far as they were concerned, it was a serious insult to the boundaries that should exist between students and teachers, especially male teachers. When I finally realized why they were so miffed, I got them together and added one fact. At the time, due to my E.Phil class, it was widely known that I was a celibate. The prank was, in other words, just a joke on the celibate . . . not the wildly inappropriate interaction between students and a teacher that

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[9] Though this was not a problem at the Kern, you'd think that sleeping outside in weather during the winter when it could possibly rain would be a stupid thing to do. It wasn't. I had very good equipment including a mummy bag that was rated to -5^{o}s and a home-made bivy (short for bivouac) sack, so being in the cold or even wet wasn't a problem (FYI, a mummy bag is designed to completely envelope you with the exception of a small hole over the face through which your nose protrudes, and a bivy sack is a breathable, waterproof "sack" you slide your sleeping bag into that allows you to sleep dry outside a tent). When rain would happen, it would normally start slowly (not always, but most of the time) with only a few, singular drops landing before the downpour. The first drop to hit my nose would wake me up. Realizing what was happening, I'd be out of my bag like a shot. I'd scoop up everything—sleeping bag, bivy sack, Thermarest, ground cloth, clothes, everything—and go sprinting in my underwear across the landscape for the safety of the tent I always made available. I do have very fond remembrances of several such instances happening everywhere from Zion National Park to the mountains running down the middle of Baja, Mexico. Poly really DID (and still does) have a wonderful outdoor education program!

appeared to be the case on the surface.)

_____x_____

[The Wild West . . .]

When I first started at Poly, I was only ten years older than my students and still looked young. That meant that as far as many of my kids were concerned, I was one of them. Don't get me wrong, if I snarled, they would jump, but I think they saw me as a relatively even keeled guy who'd had a fairly rollicking past and who still had a fun-loving, competitive side to him. I say this because in looking back, I can see that some of the pranks students pulled on me during my early days wouldn't have been viewed as being very respectful if they'd been done to a normal, older teacher. Problem was, I wasn't really normal in all sorts of ways (remember what Rolf told me). Ignoring the fact that I spent my college days living in a locker-room-like fraternity house, there were other reasons why I would sometimes overlook my kids "being bad." I need to explain that reasoning here.

In my first several years of teaching, I worked for Los Angeles City Schools as a day-to-day sub, as a home-teacher and as a long-term sub. During a long-term subbing stint, I'd take over the classroom of a permanent teacher for, maybe, a semester, while they were away doing whatever. It was during that time that I got a good look at public education and the students who were trapped inside it. What I saw was not fun.

Although there certainly were nice kids in my classes (not to mention smart ones), the general tone from lots and lots of the students was that I was the enemy and not someone worth going out of their way to be nice to. Though this was the least of it, I noticed this early on when students would avert their eyes when passing me in the hallway so as not to appear friendly and have to say "hi." There was, in other words, not a lot of good will between the teachers and students at those schools or, at least, not much the kids were willing to spend on me. On top of that, I was teaching in some very rough places. I spent a semester at San Fernando High School where at one point I was nose to nose with a kid telling him what he needed to do "right now," while his friends were in the back of the room yelling, "Hit him! Hit him!" These were tough-as-nails kids, some of whom were most certainly gang members.

What was so surprising when I arrived at Poly was that, yes, the kids were smart, but they were also friendly. You could joke with them. They

would go out of their way to say *hi* in the hallways. You could be wild and crazy in class and they'd appreciate your going out of your way to entertain them, but when it was time to get down to work, they would do that, too. They were mostly really nice kids, and the tone of the school reflected that.

Don't get me wrong, I could clamp down on students if need be, but on the whole, when my kids were being impish, they weren't being malicious (at least as far as I could see), and given where I'd been in previous years, this was huge. That is why I let my kids do things with respect to myself that would normally be viewed as inappropriate. It may have been ill-advised, but I saw their hijinks as just fun-loving kids kicking up their heals . . . and given that they would toe the line when I demanded it, I was good with that.

Put a little differently, there really wasn't anything my generally sweet, good-hearted Poly students were going to do that was going to surprise, frighten or outrage me. As such, I was pretty much up for anything.[10]

With all of that in mind, it shouldn't be surprising to find that many of my students over the years had a penchant for being funny but also had a propensity to pull pranks that could, under normal circumstances, get them into big-time trouble. I rarely zinged them for things they did, but I could have.

Enter Ini Archibong (in the photo on the next page, that's him on the left with me and Michael Caldwell just after graduation). Ini was a tall, athletic, black kid with a radiant smile. Being a really nice fellow, he was

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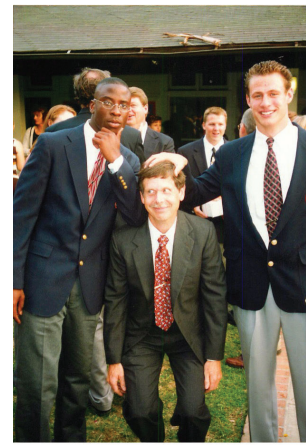
[10] Examples: During Rivalry Week in my early years, the Tug-of-War was the culminating event. It was done over a giant mud pit the senior would dig over the course of the week. Once the winner was crowned, everyone on the field including any teacher who might be there (and who didn't absolutely put their foot down) would end up covered from head to toe in mud due either to the ensuing mud fight or from being physically thrown into the pit (teachers were warned not to be on the field-proper beforehand, so if it happened to you, it was kind-of your fault). On a little different note, two or three years into my tenure at Poly, three seniors tried to grab me the last day of school to throw me into a fountain that used to be in Erdman Court just outside the Haaga House (the main Admin building). I was a lot stronger than they expected and managed to tie up all three in such a way that for one of the guys to pick me up, he'd have to pick the other two up, also. After thirty seconds of wrestling, one of them finally said, "I don't think he wants to go," and they gave up. My point is that that kind of rough housing wasn't exactly common, but if it happened it was considered a prank and something students did only with selected teachers they liked and felt comfortable with. (Bill Pickering, one of the English teachers, was someone else the students felt comfortable with. I saw him get in a wrestling match, which he won, with three juniors at the same time on an outdoor education trip down the Colorado River one year.)

also completely incorrigible and had absolutely no sense of boundaries.



For instance, knowing that I was a celibate and didn't drink (he was part of my E.Phil class as a senior), he floated a rumor amongst his friends that I had been arrested New Year's Eve up on Colorado Blvd on the Rose Parade route on charges of *public drunkenness and disorderly conduct*. Nobody believed him, but he thought it was hilarious (and frankly, give who I was, so did I).

With that bit of amusement having been shut down, he tried another a few months later when he told, again, his friends, that I had gotten a lap dance from one of the freshman girls at a Soap Bubble Party the school had put on in the gym (they literally filled a large, confined section of the gym with soap bubbles to the height of six feet—it was very fun but was a total disaster as a bunch of the kids got sick from being soaked for five hours on a cold winter night—I played, too; that's me, semi-covered in soap). Again, nobody believed him—people knew I'd never do anything like that.

When I found out about this, maybe three weeks after the dance, I pulled him aside and we had a talk. I told him his sense of humor was a lot like mine. I told him I knew he wasn't being mean-spirited, that this was just Ini being Ini. But I also pointed out that trying to be funny had to be tempered with common sense. Without that, sooner or later his hijinks was going to land him in deep Bandini. He listened. That was enough.

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[Snow everywhere . . .]

Every school has its traditions. One of the traditions that doesn't happen every year, but that has happened four or five times since I've been at Poly, has been for a bunch of seniors to go up to Mount Wilson when there has been snow, shovel a load into the back of a couple of pick-up trucks and bring it back to school for fun and games.

One particularly cool winter day during Ini's senior year (yes, we are back with Ini), I was not surprised to find an enormous mountain of snow

piled high in the Upper School's central courtyard. As usual, kids had snow fights between classes all day long, but this year had a little added delight.

As I do with all of the students (at least, with those who are amendable), I joked around a lot. So there I was, standing in my classroom with my back to the side door, when the eyes of the girl I'm talking to get really big and she says, "Oh, God . . ."

A moment later, Ini drops a giant chunk of soft snow the size of an overinflated beach ball on my head. As the maneuver is executed *in my classroom*, after delivery he turns and runs like a madman.

Without a thought, I scoop up two large chunks and take off after him. I chase him out of my room, passed the math/history building, through the courtyard, passed Haaga house (the administrative building), and out onto the enormous front lawn where I catch and nail him.

By the time I got back to my room, the kids I'd left behind had had their own snow fight with the snow that was left over. There was snow everywhere. It wasn't a problem, though. I like snow; I liked my students; and apparently, at that point in my life, I wasn't above acting "unprofessionally."

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[No sense of shame . . .]

For many years, Susan Grether was the AP Biology teacher at Poly. She was a very bright, pleasant woman with a wicked sense of humor. She was known for making a habit of saying terrible things about me to her juniors (students took AP Biology in the junior year, Physics in the senior year), most of which was so outlandish that many students thought she and I were either an item or really hated one another.

Midway through my tenure at Poly, the AP chemistry teacher was a man named Eric Stelter. Eric was a very bright, young, good looking, petitely gay young man who was spectacularly impish when it came to pulling practical jokes. He died of AIDS during Easter break one year (Susan had to take over his AP Chem classes for the rest of the year).[11]

[11] To get a feel for how impish Eric was, for years after he was gone, I would find obscene notes and addresses he had, over the few years he had been at Poly, surreptitiously inscribed into the address book I kept in my desk. On a little different note, when he died, the school was just finishing up building a new auditorium, Garland Auditorium (there weren't even seats in the structure yet). We had a kind of memorial service for him on a Saturday af-

The two of them—Susan and Eric together—were (like Ini) absolutely incorrigible.

We had, for instance, one secretary in the main office (there is no way I'm saying who) who had been with Poly for years but who was known for being periodically snippy and moody (I never had much contact with the woman, so I never noticed, but Susan and Eric swore she was). The two of them decided it had to do with her menstrual cycle, so at the beginning of Eric's second year, presumably at the urging of Susan, he hung a calendar on the wall of our communal office (at that time, four of us were in the Mudd Science Building in the same huge office) that the two of them used to chart the woman's ups and downs (and presumably her "times of the month"). Practically nobody in the department understood its significance. The two weren't being mean spirited. They were just sharing a bit of observational naughtiness. They did stuff like that all the time . . .

(It's a wonder they didn't get caught at some point—if that had happened, they'd have probably been fired . . . or shot.)

They pulled several practical jokes on me, but there was one that was a beaut. Susan's husband was a professor at Caltech. Eric and Susan bought the most unctuous, syrupy, Christian Christmas card they could find, signed my name, put it in a Poly envelope and sent it to her husband.

Unfortunately, they got the wrong box address over at Caltech, so the card was returned to Poly. As there was no return name on the envelope, the secretary up in the Main Admin building had no choice but to open the card. When she did, I'm sure she read the card before finding *my signature*. So there I was with people in the main office thinking I was the kind of guy who sent horribly sugary, Saccharin-sweet Christmas cards . . . to men.

And then there was the birthday party Susan and Eric put on for me during lunch one year for my birthday. Knowing that I couldn't eat sugar (I'd get headaches if I did), and knowing that I was a vegetarian, the two of them created a vegie platter the center piece of which had the distinct likeness of a large, erect penis, complete with sprouts as pubic hair.

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ternoon in that hollowed out auditorium (people just sat on the floor), and the place was packed (there must have been 500 people there). His mother was in attendance. I think she had been, over the course of his life, embarrassed that he was gay, because she kept saying over and over again how amazed she was that so many people came, and that so many people liked him, and so many people had said they would miss him. It was good for her to see, but really kind of sad above and beyond his passing . . .

Susan's last prank happened the year after Eric died. The new AP chem teacher, Patty, was a young Asian woman who had just recently graduated from Caltech. She hadn't had much experience teaching, but she knew her stuff and was very precise and very conscientious. Right at the beginning of the year, Susan pulled her aside to give her a few tips. One of them was, "Be sure you don't get into an enclosed space, like the stock room, alone with Craig. *He's all hands*."

Unfortunately, she never bothered to tell Patty she had been kidding, so for the entire year Patty went out of her way to stay clear of me. It didn't make any difference to me. I was in physics and she was in chemistry, so the two of us had practically no contact, anyway. Still, it took a whole year before Patty finally realized that I was an OK guy that she could trust.

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[Students of the corn . . .]

In the old days, a lot of people rather naturally assumed that Poly had no disciplinary problems with its kids. After all, it wasn't unusual for a third to half of the senior class to have National Merit Accommodations.[12] What people didn't realize was that there are ALWAYS a few cutups in any given class, and in some classes it could be quite a large percentage (being smart doesn't mean you are an angel).

Typically, a normal size class at Poly ran between fifteen to eighteen students. The sciences were usually a little larger. I normally had upwards of twenty-four kids in my AP classes when I was the only physics teacher in the department. The largest class I ever had, though, was a single section of Regular physics.

The reason the class size was so large was due to a technical oversight. That year, very few students signed up for the Regular class with an enormous number signing up for the AP class. Thinking the final number in the Regular course would be small, the school planners only allocated one class period to that subject. Unfortunately, a herd of students dropped out of the AP course going into the Regular class in the process. By the time all the shifting was done, I had a whopping *thirty-five students* in that one section.

That year, both our soccer and football teams won CIF in our division. And although this was NOT always true, a fairly large number of the

12 It's 2019, and this is still pretty much the case.

seniors in that crowd were, shall we say, edging toward rowdy.

You can imagine my delight, then, when it turned out that half of the football team and a third of the soccer team ended up in that Regular Physics course (most of the rest of those senior players were in the AP class—a lot of our athletes were brainy). That meant I had almost ALL the major players in the school's *naughty* department. Fortunately, the rabble-rousers liked me, so unlike their behavior in other classes, they were good in my class.

Having noted that, one star soccer player—a big fellow who scored 55 goals (as I remember) over his junior and senior year—was regularly late to class (it was his first class of the day). I'd mark him tardy as was the policy, but it evidently happened enough times for the administration to finally give him a bad time about it. Instead of remedying the problem by simply getting to class on time, though, he began arriving late-as-usual but with a *note from his mother* (possibly written by himself). Every day he'd walk in late, drop the note on my desk, then take a seat.

For the first several weeks, I'd stop what I was doing when he'd come in, pick the note up off my desk, open it and read the excuse. After a while, though, I stopped taking time during class and instead would wait until the end of class. I then got lazy in the sense that I wouldn't bother to look at the note until several periods into the day.

This kid wasn't stupid. He noticed this. So one day he walked in late as usual, threw his folded note on the desk and took his seat. Three periods later, I open the note and what did I find? I found a blank piece of paper. He'd given me a note that wasn't a note, and he'd done it on purpose as a joke.

This was very clever stuff. He knew he wasn't going to get away with anything. He was just having fun, but he managed to go it one better a few weeks later.

He walked in *without* a note one morning. As he came in, I moved to mark the tardy down on the loose-leaf attendance slip we used. As he passed by the front desk, and as I was in the process of penning a giant "T" next to his name, he swept the attendance sheet right up off my desk (like, right out from under my pen as I was writing), wadded it up, popped it into his mouth and ate it. The class went wild with laughter with me following in their wake. It was one of the funniest things I'd ever seen a kid do . . . ever.

Of course, in telling the story one might get the feeling that he was being disrespectful, but that wasn't what he was doing. It was harmless; he was just being clever. I do like clever.

He still got the tardy (I just pulled another sheet out of the drawer), but he knew that would happen when he did it. It was all for the amusement of his people, and amuse he did.

I thoroughly enjoyed the time I had with my students.

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[Dawn Cobb and the spit-take . . .]

Have you ever seen someone execute a *spit-take* in person? I have. For those of you who don't know, a spit-take is a theatrical device used by comedians to animate complete, utter shock and astonishment at something someone has said. The stunt starts with the performer beginning to take a sip from a glass. As the head tilts back in mid-gulp, the individual reacts to a shocking comment by choking on the gulp with the head reels forward and the liquid being cough/spit back into the glass.

My experience didn't happen with a comedian. It happened with the person who was Poly's college counselor and registrar, Dawn Cobb (yes, we had one person doing those two jobs all by herself—we now have a gaggle of administrators doing all the things she used to do solo . . .).

To understand the set-up, you need a little bit of history.

In the years before I arrived, Poly was considered to be a good educational institution. Like most private schools, though, it didn't pay its teachers very well. Consequently, its teaching staff was a bit of a mixed bag.

The year before I came, there was evidently a veritable donnybrook between the school's administration and the Board of Directors over this, and a deal was struck. The Board would raise tuition so the pay scale was within 10% of the highest paying private schools in the nation (or it may have been California, I don't remember which), and the administration would get rid of the dead weight on the faculty.

That, to some degree, was why I was hired. The physics teacher before me was perfectly capable (after he left, he went to the University of Arizona and got a PhD in physics), but he was deaf in one ear and nearly deaf in the other, so whenever he would turn around in class to write something on the board, all hell would break loose. He wasn't, in other words, able to control his kids and, consequently (though his students apparently like him), he was considered a bad teacher.

Anyway, a bunch of teachers were fired with new, purportedly "better" teachers hired. I was one of those new hires.

I, if you will remember, had just come from L.A. City School where the teachers were viewed as "the enemy." Before Poly, I didn't know that places *like* Poly existed. Once I arrived, I found myself luxuriating in the wonderfulness of being around really nice kids (not that there weren't nice kids in LACC) who were friendly (not so much in LACC) and smart and fun-loving, and did I mention friendly . . . you get the picture. Given what I had previously experienced, I was in teacher heaven and I knew it.

A few weeks into the school year, the administration decided to have a little cocktail party to introduce all the new teachers to the Board members. During that party, I was standing with Dawn Cobb and one of the Board members who apparently hadn't been overly excited about paying teachers a lot more than they had been getting (remember, the deal was, fire the dead weight and we'll raise salaries substantially . . . which meant tuition would have to go up substantially). We were talking, and everyone was being friendly and happy, and finally I said something to the effect of, "You have no idea what a wonderful place Poly is. The kids are so nice, and they are so smart, and they are so easy to get along with. I almost feel guilty about being paid to work here."

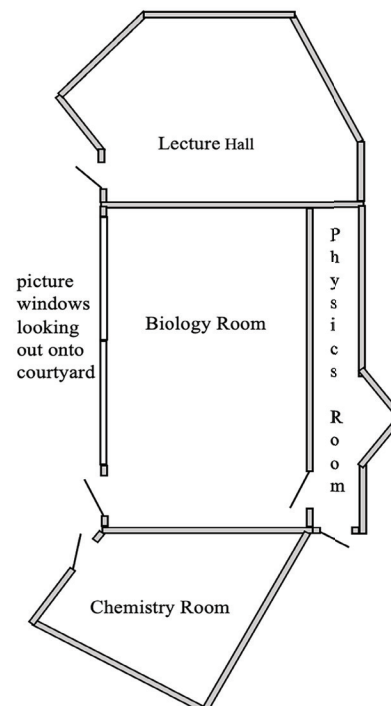
Dawn just happened to be taking a sip of her drink when I let loose with that tidbit, and the consequence was that she executed a perfect, spontaneous *spit-take* whereupon she said, "It isn't *that* great."

I had no idea what I'd done (nor was I aware of the backstory at the time), but I'd apparently nearly given the poor woman a heart attack.

_____x_____

[Ted Russell's constant . . .]

The year before I arrived at Poly, the school built a new science building. Called *Mudd Science*, it was where most of the science department was housed when I arrived. I say, "most of the science department" because the old Hixon Science Building in which the sciences had previously been housed (the building schematic to the right shows that building with all the sciences present) had been financed by a donation from a family—the Hixon family—with the understanding



that the structure be *devoted* to the sciences (hence the name). To honor that original donation, the school decided to leave one science discipline in Hixon while all the others were moved into Mudd. As I was not there the previous year to defend myself, the science that was left behind was physics. In short, I found myself in what was a large, nice room that was far, far away from my biology and chemistry counterparts.

If you look back at the schematic, you can see how little space was devoted to physics in the original plan (it was like standing in one lane of a bowling alley). My new classroom was the old Biology room (the old physics room became my stock room), a very pleasant, long, high ceiling room that had enormous picture windows along the left side that looked out onto the courtyard (it has since been split into *two* rooms). The courtyard was, at the time (and still is), the place where lots of students congregate to study or talk or just generally spend time when they are not in class. Under the picture windows and along that wall were long, counter-high tables that I used for labs.

For those not aware, *senior slump* is a phrase that denotes the state some seniors fall into after their transcripts have been sent to the colleges of their choice and there is no longer the need, at least in the mind of the student, to do much of anything else for the rest of the year. (Translation: if *get into college* is all that matters, and if that process is completed with the sending of the transcripts at the end of the first semester, then there was no reason why snooze-time isn't appropriate for the happy *senior slumper*.[13])

Not all students went this route, but it did happen a lot more often than the school or its teachers would have liked (interestingly enough, though seniors still relax some during the second semester of their senior year, it is currently no way close to the problem is used to be).

I mention this because the Student Body President during my second or third year at Poly was a black kid who was very bright, very social and very much into senior slumping. His name was Ted Russell, and Ted spent most of his second-semester time in my class in Hixon sitting at the back lab-table, gazing lazily out onto the courtyard. He was a very nice young man, but he was completely turned off to anything remotely to do with physics.

Toward the middle of the fourth quarter, I had the class attack a relatively hard problem in the area of magnetism. We had filled the board with mathematical equations and had hit an impasse the students didn't seem

[13] This was way before the current trend of "early action" admissions which requires transcripts being sent at the end of the first quarter.

able to get around. In the hopes of drawing Ted into the conversation, I said, "Ted?"

He looked up.

I continued, "Ted, we've gotten to this point (I pointed at the equation in question). What would you do now?"

Ted mused for a few moments. He was clearly thinking. Then, very slowly in measured words, he said, "I . . . . . would . . . . . prooobably . . . . . multiply both sides by *zero* and simply getting rid of the problem."

The students lost it. Hell, I lost it. From a mathematician's point of view, this was brilliant. Run into a problem you can't handle? Simply multiply both sides by zero and the problem goes away.

The approach and that *zero* became known as "Ted Russell's constant." I've told my students its origin story every year since.[14]

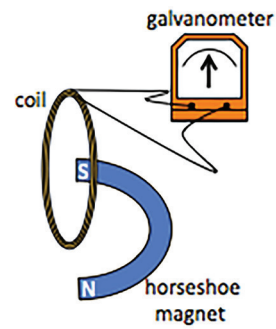
_____x_____

[Students are so trusting . . . and A.C. power production.}

[I like to tell *stories*; I like to tell *tall tales*; and I *really* like to tell stories that are tall tales when the students don't see it coming. One of my favorites happens every year when I talk to my students about the production of alternating current (AC). You are about to be let in on the fun.]

One bit of weirdness that occurs in our physical world comes about when you have a *coil of wire* sitting in a *magnetic field*. If the magnetic field passes through the coil's face, it will generate what is called a *magnetic flux*. And if the flux *changes* somehow (for instance, by rotating the coil), you will induce a charge flow—*a current*—in the coil. (The theoretical basis for this is what is called *Faraday's Law*.)

When I talk about this in my physics classes, I start with a demonstration. As the sketch to the right shows, I take a coil whose leads are attached to a galvanometer (galvanometers measure current and are unusual in the sense that their needle is located in the center of the meter allowing them to register current in a circuit passing in either direction) and place it in a magnetic field (as can be seen, I use a horseshoe magnet as my source).



[14] The last time I saw Ted he had a great set of dreadlocks and was working for a radio station in the San Francisco area.

There is no power supply in my little circuit (just a coil, the meter and the fixed magnetic field), so before I hook things up I ask the kids whether they expect a current to show on the meter when I *do* hook everything together. They usually say *no*, which is the right response because there is no battery AND although there *would* be a magnetic field through the coil (with its associated magnetic flux), there would NOT be a *changing* magnetic flux through the coil (which is what is needed to get an induced current set up in the circuit).

Continuing with the demo, I connect the leads to the stationary coil, observe that no current is, indeed, flowing through the meter as predicted, then with a grin I flick the coil out and away from the magnet. As I do, the magnetic field through the coil's face diminishes (changing the magnetic flux through the face of the coil) and, lo and behold, the meter's needle jumps as current flows. What's more, as soon as I stop moving, the current drops back to zero (no more *changing magnetic flux* through the coil, so no more current).

Pulling the coil back toward the magnet with a follow-up flick, the meter again shows a current spike. This time, though, the meter pointer darts in the opposite direction animating the fact that with an *increasing* magnetic flux, the current has been induced to flow in the opposite direction. Again, once I stop moving, the current drops to zero.

My conclusions: When the magnetic flux through the coil decreases (the flick outward), current is induced to flow in one direction; when the magnetic flux through the coil increases (the flick inward), current flows in the opposite direction

I flick outward, another spike. I flick back inward, another spike.

In, then out, then in, then out. Over and over and over again I go.

After I've done this for five to ten seconds, and as I continue with the flicking, I look up and asked, "So what am I generating here?"

Someone inevitably shouts out, "ALTERNATING CURRENT! You're generating AC!!!" And with that, enlightenment comes and everyone erupts into excited hubbub. We have just experienced the production of AC power. AC current can be produced by moving a coil into and out of a magnetic field!

At this point, I step away from the demonstration and appear to be thinking hard, trying to decide whether I should say more. Decision made, I begin to tell them a story (something by this time in the year students live for).

I don't usually tell students this (I begin), but it's in-

teresting.

Just after I graduated from college, I had the chance to visit Hoover Dam. I took the standard tour, and it turned out that the tour guide was a very pretty young girl who was right around my age. We kind of hit it off as she walked and talked us through the facility, and during the course of the tour I let it be known that I had just graduated with a degree in electrical engineering.

The tour ended and everybody departed, except the girl and I kept talking. After about fifteen minutes, she rather conspiratorially says, "You know, I really shouldn't do this, but there is something I'd like to show you."

At this point, sensing possible scandal, there is usually some whooping from the audience and my students are all ears.

We went to this elevator and proceeded down into the bowels of the dam (hard to believe, but the word *bowels* sometimes drew giggles). We got out and stepped into this damp, dank, darkly lit, low ceilinged corridor (again, oohs and aahs). We walked down to the end where there was this squatty door with a high-security keypad on the wall next to it. She turned, looked at me, and said "You aren't going to believe this."

And with that, she punched numbers into the pad, the door released, and she stepped away for me to take a look.

During all of this, I've been standing with my back against the white board in my classroom. At this point in the story, though, as I'm speaking, I'd step up to the demo table, pick up the coil and position it in the "start" position next to the horseshoe magnet, all the while talking. Continuing:

So I pushed the door open, and inside I found this enormously long, low ceilinged room—maybe five-feet high—remember, this was at the bottom of a massively heavy concrete dam—and filling the 300-foot long space were FIVE HUNDRED SEATED LITTLE PEOPLE, each with a coil and horseshoe magnet, *going like this* (at this point, I'd start flicking the coiling frantically in and out and in and out and in and out as I'd finish speaking) PRODUCING THE A.C.

POWER YOU AND I USE EVERY DAY HERE IN THE L.A. AREA.

I have no words to tell you how much I enjoy taking my students right to the edge, then leading them right over the cliff. Not expecting a teacher to tell such a bald-faced lie in the middle of a serious lecture (everything I say about *induced currents* and *AC production* up to the "I-went-to-Hoover-Dam-after-graduating-from-college" story is good and accurate), I've even had the rare, occasional kid who has said (probably because they weren't listening very closely), "No, wait, really?" before their compatriots would shouted them down with hoots and laughter.

The students are so trusting, which they should be, so when a teacher goes off the rails, assuming it is done in good spirit, it can be hilarious.

Note: In case you are an older alum reading this and remember the story differently, for the first God-only-knows how many years of my teaching career at Poly I used the word "midget" in place of "little people" in the tale. As the years wore on, I found myself acknowledging at the end of the story that it is politically incorrect (and insensitive) to use "midget," and that individuals in that community would prefer to be called "little people" (I would then apologize for my comedic license and indiscretion). I finally decided I'd just change the patter to "little people" and skip the apology. Funny, though, the first year I did that, I had a girl ask, "What do you mean by 'little people?'" to which I replied, "You know, five-year old children . . . or midgets . . . you know, people who are little." And there I was again, right back in the soup.

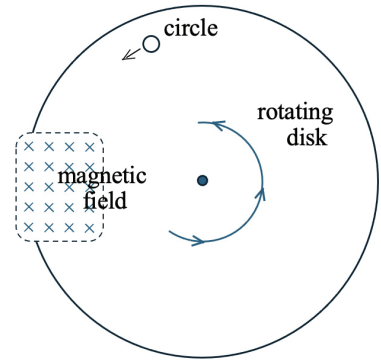
_____x_____

[Not a joke story, but fun nevertheless . . .]

In re-reading the section about AC production (the Hoover Dam story), another story popped into my head. It isn't really funny, but I tell it to my students toward the end of each school year because it's fun. It has to do with Faraday's Law (current induced by a changing magnetic flux). As usual, it needs a preamble.

Consider a flat, thin, aluminum disk (note that aluminum cannot be magnetized, but it is a metal so it does have electrons that can move around freely) pinned at its center and made to rotate about its central axis. Once

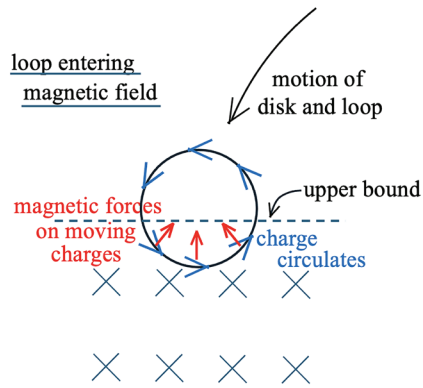
moving, let's assume we create a small region that permeates the disk, and in that region, we have a magnetic field we can turn on (see the first sketch, and note that the *x's* denote a magnetic field *into the page*). What will happen when we turn on the field?



The best way to look at this is to imagine what will happen in the metal underneath a circle drawn on the disk (in fact, I've actually drawn a circle on that first sketch).

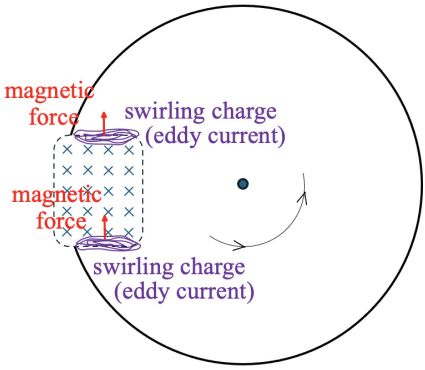
While the circle is in the position shown, there will be no magnetic field passing through its boundary, so no magnetic flux. That additionally means there is no *changing* magnetic flux, which means (according to Faraday's Law) no induced current flowing around the circle in the metal underneath the circle (we are, in other words, treating the circle as though it were a *wire loop*).

But what happens when the circle cuts through the upper boundary of the magnetic field section? Then you *do* have a changing magnetic flux through the circle, so a current will be set up in the metal. What's more, because charge in motion (the current) moving through an external magnetic field will feel a magnetic force that is perpendicular to the direction of the flow (odd, but that's the way magnetic fields interact with charges in motion), you will see a *net upward force* on that circling charge (look at the second sketch). This will last as long as the magnetic flux is changing. Once the circle gets fully into the magnetic field, there will still be a magnetic flux (magnetic field line will still be passing through the circle) but because there will be no *change*, the induced current will drop to zero.



Using the same reasoning we used when the circle entered the magnetic field, when the circle gets to the lower boundary, a similar thing will happen (changing magnetic flux inducing a current that interacts with the external field producing an upward force). In other words, as the circle

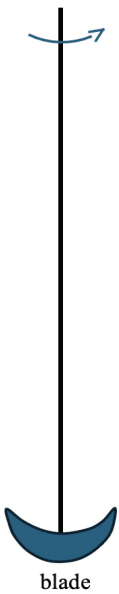
enters and exits the field, we get a braking force on the metal.



Of course, the disk is not a single circle of metal, it's a continuous metal sheet. So as the disk rotates, there is a constant swirling of charge at the boundaries and a constant force fighting the motion. The swirling charge is called an *eddy current* (see sketch to the left), and this set-up is called an *eddy current brake* (these are used to help stop trains, and there are rides at Six Flags Magic Mountain that use the effect to stop roller coaster cars).

So far, so good. Now for the story.

It seems there was a very, very old professor (like, in his nineties) at a university back east who was completely devoted to coming up with amazing demonstrations for his freshman physics class. In fact, the rumor around campus was that if he ever found he had a terminal illness, he'd come up with a spectacular demo in which he would die at the end, just to wow his kids.



His class was held in a huge, tiered, high ceilinged lecture hall. Ten minutes before every class, the students would be let into the lecture hall to look at that day's demo. One day, the students were met with a very long rod that extended up into the ceiling, and at the lower end of the rod was a *pit and the pendulum*-like ax blade. The blade hung stationary over the demonstration table at the front of the room amongst a clutter of "stuff" on the table.

The professor arrived a few minutes late. He acted like he was surprised to see the blade when he entered. He looked it over, even using it to slice a piece of paper in half to show that the blade was, indeed, very sharp. He then muttered something to the effect that, "This is in the way," and proceeded to walk the pendulum toward the far side of the room (the tech folks had even provided a ramp for him to walk up as the pendulum and blade swung upward). Once next to the far wall, he fumbled with a tie that was attached to the wall, ultimately losing control of the pendulum whereupon is flew back down toward the center of the room. It swung through the bottom of the arc, then proceeded to the other

wall. It stopped at that wall, reversed its motion and came swinging back.

As the professor was walking down the ramp and back to the center of the room, he grumbled, "I don't have time for this." With that, he began his lecture, ignoring the pendulum as it went back and forth for the rest of the period (the tech folks had apparently attached a kicker to the rod where it was connected in the ceiling, so the motion never dampened out). Predictably, everyone soon focused on the professor's lecture and within a few minutes were oblivious to the pendulum and the swish . . . swish . . . swish . . . swish sound the pendulum made as it sped through the bottom of the arc with each pass.

The class period was fifty-minutes long. The chalk board (this was back when chalk boards were used—none of that white-board garbage) was full of theory pertaining to Faraday's Law, eddy currents included. His presentation had been flawless, but at the forty-five minute point he stopped talking, looked hard at the board, then mumbled something to the effect of, "I think I've made a mistake."

He turned from the board just as the blade passed over the demo table. With the blade safely out of the way, he reached across the table and pulled his open book of notes closer. And with that, he rested his elbows on the table and began to look hard at the book.

At first, this was not disturbing. His neck *was* right in the path of the blade, but the pendulum arm was super long and it took the pendulum a long time to go out to the wall and back again. But as the old man sat in what appeared to be deep contemplation, time began to run out.

The students could see what was happening. At first a few kids tentatively spoke up and said things like, "Ah, professor ... the pendulum ... ," but as the pendulum had stopped and was picking up speed moving back toward his neck, the kids became more agitated until nearly everyone in the room was shouting warnings with some exclaiming, "He's really going to do it. He's really going to kill himself."

The professor seemed not to hear any of this, and as some of the students were literally looking away so as not to see the horror they expected to ensue, just as the blade reached his neck, it stopped dead (like, two inches away). Unfazed, he took off his glasses as he looked up from his book and said, "EDDY CURRENTS!" And with that, he abruptly turned and exited the room.

Well, the kids were going ape-shit. They all crowded around the table to see what had happened. What they found was that amongst all that "stuff" on the table that the pendulum had threaded its way through on its back-and-forth journey, there was an electromagnet the jaws of which

the blade had to pass through during its travels. Apparently, the electromagnet had been off the entire time, but just after the blade made its last pass through the jaws and the professor put his neck on the line, he flipped a switch located underneath the table turning the magnet *on*. When the blade entered that powerful magnetic field, eddy currents were set up that acted like a brake, making the blade stop just before separating the professor from his head.

How's *that* for a cool demonstration?[15]

_____x_____

[15] I have to tell you, I have so wanted to do that demonstration for my students, but I've never had a ceiling high enough. I did have an opportunity to see the demo done, though, in kind of a surprising setting. This is going to take a little telling . . .

Caltech is right across the street from Poly. During those early years, every Caltech freshman took the same freshman physics class (nowadays there are options). The kids would go to lecture twice a week, then to a recitation section twice a week. There were ten recitation sections. Which section a student was assigned to depended upon how well he or she did on a test they had to take during the previous summer. The brilliant kids ended up in Sections 9 or 10; the danglers were put in Sections 1 or 2.

Early on in my Poly career, I talked Caltech into letting me teach one of those recitation sections (all I needed to do this was a Master's Degree in Physics, which I had). They gave me *Sections 1* and I did quite well with it (once assigned a section, the kids could go to whichever section they wanted—I started out with 15 kids and ended up with 45—apparently, I was doing stuff that was deemed useful).

All the professors doing the same job I was doing were tenured faculty. There was one old guy who had worked at Los Alamos, New Mexico during WW II on the atomic bomb, and one fellow (Politzer) who was given a Nobel prize in 2004 (he got it for his discovery, along with collaborators, of asymptotic freedom in the theory of the strong force). We would meet once a week to talk about the class, and I have to say it was so refreshing to be around people who were completely secure in their physics chops—it wasn't uncommon for one of them to start the meeting off with, "I couldn't for the life of me figure out problem 4 on the homework. Someone, please, explain it to me."

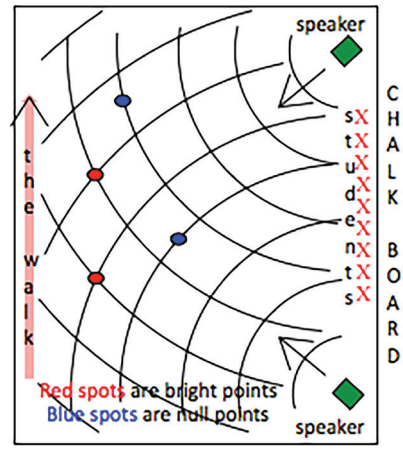
Anyway, I told them the pendulum story during the semester we were doing mechanics, and the guy who was running the class had their tech people create a blade and pendulum, just like in the story . . . except the blade was made out of aluminum, wasn't sharp, and when it came time to pull the prank on the students, he wasn't willing to put his neck on the line for effect. Damn! It was hard to get good help in those days.

And one other thing about my Caltech experience: The fellow who ran the mechanics part of the class (his name was Bob McKeown) was doing research on high energy cosmic radiation. He wanted to put a pair of radiation collectors called schmoos in various high schools around the area to register data for cosmic radiation storms (the schmoos stood about three-foot high and had a spaceship-nosecone look to them). The schmoos he intended to use were castoffs from an experiment that had been done years earlier at Los Alamos, New Mexico, so he and I and five or six volunteers went to Los Alamos to collect the schmoos. It was a very cool experience.

[Students are (again) so trusting . . . and superposition of waves.]

As I'm thinking back to the Hoover dam story, another instance of me giving out perfectly good information that turned at the last minute into something ludicrous came to mind.

There is a phenomenon associated with sound called *superposition of waves*. It happens everywhere, but in a controlled situation it can be kind of fun. One such situation is the following demonstration.



Take a single frequency sound source and pipe it through two speakers that are at opposite ends of a room (see the sketch). The sound from the two speakers will combine out in the room, superimposing constructively in some area and destructively in others.

That is, there will be well-defined areas where the waves will reinforce each other and the sound will be loud (sometimes called "bright" spots), and well-defined areas where the waves will cancel one another out and the sound will go away (called "null" points).

One day, years ago, I set this demonstration up. For it to work, it was important there not be obstacles in the room, so I had the entire class stand along the chalkboard (this was back before white boards) behind the projected path of the sound waves. To experience the effect, an individual kid would walk to the back of the room, then walk slowly along the back wall listening for *bright spots* and *null points*.

There were two problems with the demo. First, that opposite wall produced bounce-back creating a kind of echo—something that could be distracting. And second, the frequency I was using made the spacing between bright and null points somewhere around a third of a meter—right around the distance between one's ears (I've made the spacing of the wave in my sketch considerably larger so they can be seen).

To eliminate both problems, I decided to have the kids plug their wall-side ear as they made their walk. With all the students standing along the chalkboard wall, I explained the problem, then told everyone to put a finger into their left ear.

Being good, responsive, trusting students, everyone did.

It was at that point the imp in me took over. I hadn't planned it, but there was something about an entire class of students standing along a wall with one finger in their ear that just seemed funny, so I went one step farther. With my trusting students listening to me attentively, my next command was, "Now everyone, jump up and down on your right foot."

. . . CHAOS . . .

About a third of the students did what I said. When they did, the rest began to laugh hysterical at their friends who were dutifully following the instructions of this obviously deranged teacher, and within ten seconds everyone in the room was doubled over.

I probably should have been ashamed, but they were so trusting I just couldn't stop myself. Fortunately, doing unexpected stuff like that seemed to be part of what they loved about me, so it wasn't so bad after all.

_____x_____

[Bernoulli's effect and the groover . . .]

Stories that are educational are always fun, but stories that are both educational AND surprising and, maybe, even a bit shocking, that's where the money is. The follow was one I always told my seniors about halfway through the second semester (i.e., when many were feeling the effect of senior slump). The story starts out looking like a personal tale.

Years ago, my compatriots and I were having breakfast together on a Sunday morning (a rare occurrence, I might add), when the Pasadena Police Department called to tell Brian that someone had thrown a brick through the picture window fronting his office (the office was located on Lake Avenue just above the freeway). Aside from being a bit unsettling, this meant we had to go up to his office and board up the giant hole that was left.

When we arrived at the office, a mystery of sorts emerged. To begin with, all of the glass was on the sidewalk—not what you'd expect if someone had thrown a brick from the street-side through the window. On top of that, there was no brick in evidence. Very strange!

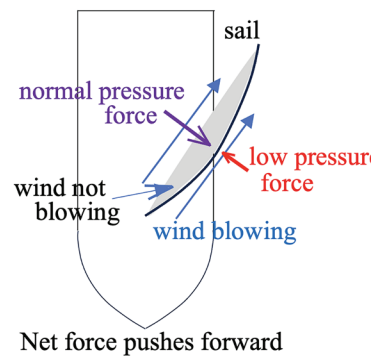
It didn't take long to determine what had happened. Two months earlier, someone had shot a BB through the upper-right side of the window. It hadn't broken the window (if you've ever seen a BB hole, it's a tiny thing), but it certainly compromised the integrity of the structure as a whole. Additionally, the night before, we had a windstorm. These weren't

high winds, maybe 30 mph, but they happened. And why was all of this relevant? A bit of physics will explain.

To begin with, the atmosphere above us has weight (there is approximately seven miles of gasses above us comprising our lower atmosphere). That weight generates *14.7 pounds per square inch* of air pressure at sea level. What's more, air pressure is not directional. That is, if you have a piece of paper (or a huge pane of glass), the air pressure on one side of it will be the same as the air pressure on the other side, no matter the orientation (you can experience this non-directional nature of pressure if you want—dive into deep pool and go to the bottom—while there, your ears will feel pressure on them whether they are pointed upward or downward or sideways—the water pressure comes at you from all direction) . . . all of which leads us where?

In the 1730's, the mathematician Daniel Bernoulli noticed an interesting phenomenon. When air or any fluid passes over a surface, it drops the air pressure on the surface. You can experience this, also (as I show the kids during class). Blow air across the top of a limp sheet of paper that is held at one end and hangs down. The air moving across the upper side will drop the air pressure on that side. As the pressure on the underside will not be affected, the greater pressure underneath will cause the page to rise.

The point is, when air passes over a surface, it drops the air pressure on that surface. This phenomenon can be seen in all sorts of everyday ways. If you live in a home that has a shower with a shower curtain, you've probably noticed that when the shower is running, the curtain swings in toward you. The moving water drops the air pressure on the inside of the curtain, and because the pressure outside the curtain is normal, the curtain is pushed inward due to the pressure disparity. Sailboat can sail into the wind (more or less) because wind passing across the front of the sail will drop the air pressure on the front-side. Due to the shape of the sail, little wind passes across the inside face so the air pressure there remains normal. The pressure difference effectively pushes the boat forward (see if you can make sense of the sketch, which took me tons of time to create). The wing of a small airplane is shaped so that air passing over the top of the wing will have to travel farther (hence, will have to travel faster) than air moving across the bottom of



the wing. That means more pressure drop on top, which generates what is called *lift*. Atomizer bottles work on this principle; tornados can blow buildings outward by dropping the air pressure on the outside of the building while the air pressure on the inside remains normal (though I believe the Myth Busters television show may have debunked this claim). I even do a demonstration in which I use a blower to blow a styrofoam ball up into the air (Figure A), then angle the air so the flow is coming in from the side (Figure B). Surprisingly, the ball doesn't fly away. Why? The ball's weight pulls it down so more air is shot over its top. With the air pressure on the top dropping more than on the bottom, the pressure difference (again) between the top and bottom buoys the ball up.[16] Very cool!

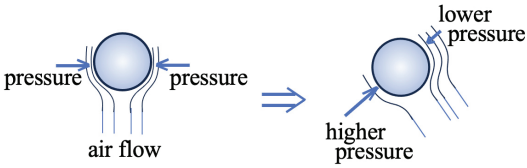


Figure A Figure B

So how does all of this solve Brian's *broken window with glass on the street* problem? We were pretty sure the wind the previous night had dropped the air pressure on the outside of the window, and because the glass had been compromised with that BB hole, the normal air pressure on the inside of the building just pushed the window right out of its frame and onto the sidewalk.

Ignoring the fact that this is all fun stuff in general, I use the story (and the demos that go with it) to get the kids primed for the *real* story, the one that will have relevance for them at the end of the year on the senior trip to the Kern River. Continuing with the tale:

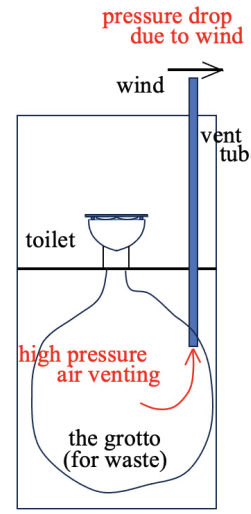
Ever since I've been at Poly, I've gone on a class trip during the first quarter of the year. And for years, the trip I took was with the Juniors down the Green River in Utah. The Green was a very slow-moving river, so we were in two-person canoes. The entire class was together, all 80 of them. Trips like that had very few rules, but one that was sacrosanct was that everything you brought in, you hauled out . . . as in, *everything*. That meant we needed some way to deal with human waste.

Enter the groover.

The groover was basically a WWII army ammo can (the ones we used had held ammo strips of machine gun shells). These cans were a little over a foot long, maybe nine inches high and about five inch-

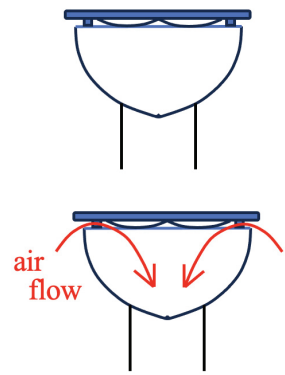
[16] Small side note: As the ball begins to spin, the Magnus force also kicks in . . .

es wide. We would insert a garbage bag into the can giving everyone a place to poop when the time came (no peeing—that went into the river). In the old days, before they started bringing a toilet seat on the trip, you would sit on the rim of the can and when you got up, you'd have a groove in each cheek, hence the name. Anyway, on one trip I had religiously use the groover (as was the case with everyone else) for five whole days, so you can imagine my delight when we got to the take-out at the end of the trip and found a cinderblock outhouse (four-seater). Being the intrepid soul that I am, I decided to avail myself of the facility. To my surprise, when I sat down on the toilet seat in my private little enclave, I noticed a decidedly strong breeze wafting across my bottom. This was not something I was expecting. Were there little creatures under the seat, fanning my tush? Very odd.



It wasn't until I thought about the design of the outhouse system that the answer came to light. Outhouses are made up of several parts. There is the commode upon which you sit, and below it what I call *the grotto* where goes the waste. Because fecal matter generates methane gas, and because methane gas is explosive, the Park Service had to come up with a way to keep some redneck from going into the facility, lighting up a cigarette, and going Ka-boom.

Their solution was ingenious. By putting a venting tube from the outside above the house down into the grotto, a stiff wind would drop the air pressure at the outside end of the tube and the normal air pressure in the grotto would force air up and out. There was only one problem. If you remove air from the grotto, you have to replace it with air from somewhere else. But where?



Toilet seats have standoffs that elevate the actual seat above the porcelain of the toilet (see sketch, and be impressed that I included the bottom of your tush in the picture—after all, realism is everything). That means the needed air can be drawn down through that space. That was the air I felt passing by my bottom (again, see sketch).

At the end of the discourse, I tell my kids why I'm talking to them

all of this. "During your Senior Trip at the Kern River at the end of the school year, you will be setting up a base camp from which you will go on outings during the day. Every night, you will return. There are outhouses at the base camp, and because it is often windy in that area, you are pretty well guaranteed to experience Bernoulli's effect sometime during the trip. When that happens, I expect you to go tell your friends about it, and if they didn't have me as a teacher, I expect you to explain the physics behind the experience. After all, what's physics good for if not to enlighten."

How's that for science with flare?[17]

_____x_____

[Not exactly squeaky clean . . .]

I'm writing this in November, 2021. When recounting amusements to friends, there is nothing better than a joke inadvertently played on oneself. As usual, a bit of background is needed.

The chemistry of soap is really quite interesting. The idea is that the molecules that are, collectively, what we call soap and shampoo have at one end the propensity to attach themselves to grime (dead skin cells, sweat, oils etc.), and at the other end the propensity to attach themselves to water. That means that when you lather up, one end of a soap molecule will grab hold of grime, and when water sheets over your body from the shower, the other end will grab hold of a passing water molecule and be washed away (along with the grime). Water that does this readily is termed *soft water*.

The rub comes when the water has a high mineral content (mainly calcium and magnesium). Then the water reacts chemically with the soap producing a kind of scum. Water does not remove this scum easily, so rinsing doesn't wash it away instead leaving a film on your skin.

Water that does this is called *hard water*. People who live in areas where the water is hard have to use a *water softener* to condition the water to clean effectively. (When I used to grade AP exams in Kansas City, I found that I had to use very little soap while taking a shower because the water in the hotel and, presumably, the city, was *hard water*.)

So much for background. At the beginning of the 2021-22 school

[17] Interesting bit of trivia. There is a Poly alum who works at Sierra South in Kernville (that's where the senior trip happens every year). I've run into him several times, and every time I do he tells me that whenever he uses an outhouse, he thinks of the Bernoulli story.

year, I chaperoned a Poly class trip with sophomores and juniors to Santa Barbara to do a number of community-service-projects over the course of a week. We stayed in a camp ground at El Capitan beach that had the nicest hot-water showers (for free) I had ever run into outside of an actual home (though I have to admit, I hadn't had much experience with showers on class trips—of the 90 plus trips I'd chaperoned during my time at Poly, I think I was only in two other place where showers were available). Always prepared, I took a bar of soap and even went out and bought a tube of *Head and Shoulders* shampoo for my hair. It was all very decadent.

Unfortunately, as I found out after having lathered up luxuriously on that first night, the water in the campground was *hard*. I had, in other words, a terrible time getting the slimy coating of soap off my body. The same was true of the shampoo.

The trip was a good one. The students and chaperones had fun, did constructive, restorative work, and all was well. I got home and fell back into my old routine, complete with my nightly shower. And as it was handy, I began using the shampoo I'd bought for the trip.

I'm fortunate in the sense that my water at home is *soft*. That means I don't normally have problems getting soap to sheet off my body after soaping up. But for some reason, the shampoo wasn't rinsing off easily leaving the same slimy film I had experienced on the trip. I didn't think much about it at the time, figuring that the *Head and Shoulders* people had just changed the formula for their shampoo, but it was still odd.

Maybe two weeks passed, and one evening as I was showering the lightbulb went on. I don't wear my glasses in the shower, so I can't usually see things like labels on shampoo tubes, but I scrunched up my eyes to see what was printed on that tube and, low and behold, it didn't read "Shampoo," it read "Conditioner."

I had been washing the shit out of my hair both on the trip AND for the previous two week at home *with Conditioner*. My hair wasn't very clean, but it sure was thilky!

_____x_____

[Schmoke's bike . . .]

This isn't exactly a prank, but it does make me smile every time I think about it.

If you began to walk northward from the southern-most part of Poly's campus, you would walk through the estate that houses the Upper School,

across a street, over a baseball/football/softball field that is adjacent to two gyms (one for the boys and one for the girls) and a pool whereupon you would enter the North Campus. In that area, you would find housed the Lower School, the Middle School and the Main School Administration Buildings. The distance traveled, total, would be around four blocks.

There was a point in time when San Francisco decided to place unlocked bicycles around their city so that anyone who wanted to use one for transportation could. The only stipulation was that when the borrower got to his or her destination, they'd just leave the bike for someone else to use.

I thought this was a good idea, so I suggested Poly do something like it to Greg Feldmeth. He, as I remember, talked Debbie Reed, and within the year Poly tried a similar arrangement to make travel between campuses easier. To effect this, the school bought four or five old, beat up bikes, paint them Poly orange to make them stand out, and for a time just left them about on campus.

It was around this time that Chris Schmoke, who was one of Poly's chemistry teachers along with being Poly's football coach (he became one of the deans later in his tenure), had his own very nice bike stolen while sitting, locked, out in front of a restaurant up on Lake Ave one day. After the theft, he decided to buy a junker to replace it (a junker being a bike he wouldn't mind losing, should theft happen again—and I might add, this was a *real pile* . . . at one point, the handlebars somehow detached from the bike frame in a way that was not fixable, so Chris duct taped them back on).

One day, Chris rode his pile up to the North campus to a meeting, and when he came out of the meeting, sure enough, someone had stolen his bike again, except this happened ON CAMPUS. At first glance, it would seem the thieves were getting REALLY bold . . . except not quite. Chris found his bike on campus a few days later *painted ORANGE*. One of the maintenance guys saw the bike, assumed it was supposed to be one of the transit bikes, grabbed it, took it to the maintenance area AND SPRAY-PAINTED IT.

Chris, who had a great sense of humor, was a good sport about it (the bike *was* a mess). That notwithstanding, I still smile every time I think about the mix-up.

_____x_____

[Finding ~~Waldo~~ Fletch . . .]

I'm pretty sure I've mentioned that my trajectory at Poly has been plateau-like with a dip about two-thirds of the way through. That is, for the first twenty-five to thirty years, *every year* would leave me thinking that "this was the best year ever," and "I'm ready to die because I couldn't possibly have a better year than this one was, ever," and "the kids this year were amazing," only to have the next group of students arrive and be just as wonderful and fun and insync with me as had been the case the previous year. It was like that for two and a half decades—twenty-five years of sheer pleasure working at Poly.

Then, although there were always some students who seemed to enjoy my presence, there was a period of time in the early 2000's when there were a fair number of students who did not like me in a pronounced and substantial way. Their disaffection was totally my fault. Some were unhappy with the way I removed myself from the E.Phil class, attempting to move back toward being more normal. Some were unhappy with the way I executed my stand against the administration over the AP policies for seniors. Some were unhappy with the changes I made in teaching my Honors physics classes (I tried to make the kids take more responsibility for their own educations—the new approach had merit but was resisted and resented mightily by many students). And some were unhappy with my having had a girlfriend who was an alum (AB). The point is that there were four to eight years when I wasn't feeling much love from my students, and it was a drag.

They say that a person's life follows an arc. You start out in diapers, get your sea legs, play as a child devoid of responsibilities, develop from a basically unsophisticated creature to one that thinks clearly and deeply (hopefully), living an (again hopefully) productive life. Then with old age, the urge to play returns, responsibilities begin to wane, the mind begins to go and if you are really unlucky, you end up back in diapers.

It looks like my Poly life has followed a similar path, except my early existence was one of fun and fulfillment, my short mid-life was not so pleasant, and my later life was back to fun and fulfillment. I say this because I am within a few years of retiring and sometime in the early-to-mid 2010's, everything turned around and I was right back to having students who seemed to appreciate my man-child ways.

I won't say it was *the* highpoint (there have been so many fun things happen in so many ways with so many students in so many classes over the years, picking one to be the ultimate highpoint is not only impossible, it wouldn't be fair to the rest), but the class of 2017 did do something that

was quite unique and a little bit hard to believe.

It all started, I think, with earplugs and an announcement I made one Morning Meeting.

I said (loose transcription):

> I've been chaperoning, on average, 3 dances a year for nearly 40 years. That's around 120 dances in my Poly career. And given the bone jarring volume of the sound systems that are used at dances, the only reason I'm not deaf as a door right now is because I've worn earplugs to every one of those dances.
>
> You are young and your ears can take the earsplitting sounds that DJs regularly put out, but with time your hearing is going to begin to fail because ears are very delicate devices, and you can't beat on them for long without it beginning to take its toll. I was feeling particularly paternal (for reasons that are not altogether clear to me) earlier this year, so before the first dance of the year I got earplugs for all the students in my Honors Physics classes.
>
> I felt pretty good about myself for doing that until it was pointed out that I was leaving out the rest of the school, so I now have earplugs for everyone.

With that, I held up a bowl of earplugs and, to my surprise, got a roaring ovation of appreciation from the entire student body.

Unfortunately, I then went one step too far. After saying anyone who wanted a pair could find the bowl in Rm 109 of the Science Building, I mentioned that the plugs did need slight alteration because they were too big to fit in one's ear fashionably. I think I put it, *"You'll have to cut them down by about a third or you'll end up with the Frankenstein look."* To emphasize what I was talking about, I took two earplugs out of the bowl and placed them loosely in my ears so students could see them sticking out like the bolts on Frankenstein's neck. Some of the kids got the joke and laughed. Having made my point, I yanked the plugs out of my ears and absentmindedly dropping them back into the bowl.

I didn't think twice about the move as I knew the plugs weren't contaminated. I hadn't jammed them very far into my ears, just inserting them superficially and *very loosely* so they'd stick out as much as possible. In any case, with that I took the bowl and left it in Rm 109.

Two days later, very few had been taken. Richard arrived on the

morning of the third days and asked if I knew why so few had been taken. I said, "No."

He said, "Well, the kids saw you take the ones you put in your ears and put them back in the bowl, and they are afraid they'll get the used ones if they take two."

SHIT! I made the gesture because I wanted the kids to protect their ears. Apparently, I had inadvertently shot myself in the foot. In an attempt to salvage the situation, I wrote out the following statement and put up on the Science Building doors (Kelly, one of my students, suggested putting it up in the bathrooms—she was kind enough to do it in the girl's while I did it in the boy's bathrooms). The note read:

> *WORD HAS IT* that students aren't taking the earplugs I've provided for the dance because I put two into my ears for demonstration purposes during my announcement, then pulled them out and plopped them back into the bowl (a horrible mistake—I should be shot). Ignoring the fact that I didn't put them very far into my ears, or that my ears are actually very clean as ears go, or that even if the plugs had been soiled, they would have been obvious and you could have steered around them, apparently the *cooty factor* has been too much for many.
>
> In deference to those of you who are squeamish (God help you if you ever have children and experience the thrill of changing diapers), I HAVE REMOVED THE TOP LAYER OF EARPLUGS FROM THE BOWL so the offending plugs are no longer there, and have dumped them into the trash (I did this in front of Mr. White's Comp. Sci. class, so there were witnesses). In short, it is now safe to take a pair. Go, do it (you clods), and may your ears *live long and prosper*.

That was the sign that went up all over campus.

Turned out that I'd gotten the date for the dance wrong, and it wasn't the weekend of my announcement but two weeks later. By the time it arrived, around 150 earplug pairs had been taken. Hallelujah Brother.

And why am I recounting all of this?

A month or two passed and Rivalry Week arrived (it was actually spread out over three weeks that year). One of the events had each class assigned a dress-up theme for a day. The senior's theme was "a favorite

teacher." Guess who they chose. There were surely other teachers in the mix, but I suspect my oddly characteristic look—plaid shirt, jeans, Teva sandals, a blue hat, a mustache—along with my earplug-highlighting altruistic bent made me the choice (though I had no idea beforehand they had decided to go that route).

So I'm in my office working during the *first period* of the appointed day, and I get a text from Richard saying that students in his Comp Sci class needs some earplugs, and would I bring down what I have. I didn't have any left (I'd taken the container home), but I figured I could educate the students in the art of homemade earplug-making using Kleenex, so I grabbed a box and pitter-pattered on down to Rm 109.[18]

When I walked into the room, I was greeted by twenty students, all wearing plaid shirts, jeans, Teva sandals, a blue hat, *and a mustache*. IT WAS SIDE-SPLITTING. What's more, for the rest of the day, everywhere I turned I found seniors walking around wearing a plaid shirt, jeans, Teva sandals, a blue hat, and a mustache. And at lunch, they all got together and took a picture.

Can you find Craig (kind of like *finding Waldo*) amongst all the mus-

taches in the photo?

[18] There's a science to making a plug. Start by wadding the Kleenex up. Being wet yields better sound absorption, so if you have a water source, great, douse it. If not, pop the wad into your mouth and chew it some. Once wet, stick it into your ear (kind of like a Wet Willy). It totally grosses the kids out if you have to use your mouth, but that's kind-of the point.

I'm almost dead center, bottom row in the red and blue plaid.

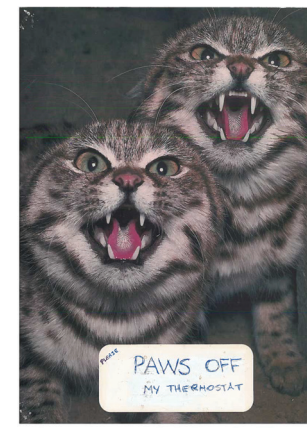
All day long, I'd be teaching at the board, turn to face the class, see a sea of mustaches staring back at me and just break up. It was one of the coolest things I've ever experienced here at Poly.[19]

_____x_____

[The photo says it all . . .]

When I first arrived at Poly, it was the first year people were in the new Mudd Science Building (though as I said, physics didn't get moved into that building until a few years later). One of the problems with the Mudd Building was the ease with which the air conditioner thermostats could be messed with (at one point, some bright soul turned the Chemistry Room's thermostat down to zero, so when people arrived to class the next day it was like walking into the Arctic).

When I was finally moved into the building several years later, I decided to use a tongue-in-cheek approach to keep the kids from doing anything irritating with my heating system. The sign I used is shown to the right. It was glued just above the controls. I'm including the photo because I think it is fun.



_____x_____

[And finally for this chapter, a word about words.]

I do love words and phrases. I love them when they are presented in a clever way; I love them when they have an exotic sound to them; I love them when they surprise the listener or reader. What follows are just a few of the words and phrases I've run into over the years that have caught my attention and delighted me (along with one illusion).

The Yiddish word *geshnootz*—(it means to be grumpy), as in, "It

[19] The class of 2024 did a similar thing with one student, Malcolm V. (his dad works in the Arts department), doing an unbelievable job of matching in his fake mustache the gray of my own mustache. I have a bit of a soft spot for that group as I retired in 2024, so they were my last AP and Honors Physics classes ever, and to cap it all off they gave me my second *Teacher Appreciation Award*. Very nice!

scared the geshnootz out of me."

The Yiddish word *feshnicken* (which I misremembered as *festooken*). It means *getting drunk to the point of barely functioning*. I heard it out of the mouth of Mel Brooks as the "sacramental wine" purveyor, Friar Tuck, in *Robin Hood, Men in Tights*.

My dad, when he was tired, saying, "I feel *decrapitated*."

If I was sitting like a slug instead of doing something my mom had asked me to do, she would sometimes say, "Don't just sit there like a cow being milked. Get moving." I found from experience that if you want to get a lethargic student's attention, saying something outlandish will often do the trick. That quote is something I used to use on very rare occasion, like, maybe, once or twice a year. I'm sure there are purists out there who would think this scandalous and totally unprofessional, but if you want to shock students out of their doldrums, there is no better way to get the job done.

The photo to the left is a visual illusion I love. What you are looking at is a photo of *shadows* of camels taken from above.

Theophrastus Bombastus von Hohenheim was a sixteenth century Swiss physician and alchemist. He was known to history as Paracelsus (or, "beyond" the historic figure Celsus). Catchy, eh?

Paramahansa Yogananda, the founder of *Self Realization Fellowship*. *Hansa* means *swan* in Sanskrit, so Paramahansa means *supreme swan*.

Hermes Trismagestus, a legendary Greek figure. Trismagestus means *thrice great*. The word very much sounds so!

The Arabic word *mumkin* means *possible*. *Mish mumkin* means *not possible*.

Sometimes when mom would make reference to one of her cats, she would call it *little furry bottom*. To the left is Isabella modeling that sentiment for you.

That's it for now. If I remember others down the line, I'll include them.[20]

[20] I read this section to Robin Barnes, the head of the Science Department and a good friend, and she said the phrase she and Jill Bush have latched onto is *hurkle durkle* It is Scottish and means *to stay in bed when one should be up and about*.

Chapter 38

Pranks and Amusements I Have Known —Part 2—

[. . . more stories and pranks.]

[The infamous M.O.B. Maneuver . . .]

There are two or three things that happen every year that most-all students will remember forever. One is the wabbit, who you will meet later. Another is the MOB maneuver, which we'll talk about now. What follows, in fact, is more information than I normally give the kids about the MOB maneuver, but at the end you'll get their spiel.

My stepdad, Stu, was an architect and contractor. That is to say, he'd design houses, then build them himself. His office was on Huntington Drive in San Marino and he did, in fact, both build and remodel several homes in that city. When he and mom and I moved to San Marino to live, I was in the fourth grade. By the time I'd reached high school, I was making money on weekends by cleaning up Stu's building sites. I'd sweep up in a house, move huge piles of lumber from the front of the house to the back, move huge piles of refuse from the back to the front. Whatever had to be done to maintain the site while under construction, I'd do. As I said, it was how I made money early on in high school.

There were two cars I really wanted when I was a kid. One was a Corvette and the other a '55 Chevy (both shown to right).

My parents said I could have either if I could afford to make the payments, maintain the vehicle and pay for the insurance. I'd saved $250 from my weekend job and could do none

of those things for either type car, so a few weeks after I turned sixteen and got my driver's license, I began scouring the newspaper ads for a car I could afford.[1]

Being the egocentric soul that I was, I wanted something that would make me stand out. I found it in a small desert town outside of Los Angeles. The mortuary there had just bought a new set of wheels and wanted to sell their 1935 hearse, complete with side-lanterns and plate glass windows all around (the rear-end photo I found on the Internet didn't have the side lanterns . . . pity). I called and they said I could have the beast for $250.

In anticipation of the purchase, my friends and I thought up all sorts of slogans we were going to paint on its side: "Call one-eight-oh and away you go;" "Try our quick-freeze lay-away plan;" "Don't laugh mom, your daughter may be inside" (though it never occurred to us that this might suggest the daughter was dead). All I had to do was wait for the new vehicle to arrive and the old girl was mine.

Unfortunately, the wait was interminable. I'd call every few weeks only to be told it would be a few more weeks. After a couple of months, I finally gave up and bought a black, 1956 Ford station wagon (see photo). The day after the purchase, the hearse folks called. What a drag! My mother, on the other hand, was ecstatic (nothing like having a hearse parked in front of your house to raise property values . . . in San Marino . . .).

The station wagon wasn't as exotic as a hearse, but I threw a mattress in the back, reveled in the fun of "three on the tree" (a manual shift, three-speed-on-the-column) and would regularly get rubber in second gear

[1] As a minor point: Being sixteen when I was a kid was altogether different than being sixteen now. I got my *learner's permit* when I was fifteen-and-a-half. There were no requirements beyond my having to learn how to drive somehow (in fact, San Marino High had a Driver's Ed class that I took as a sophomore, but I don't think it was required to get a license when I was sixteen). When I turned sixteen, I went to the DMV, took the written test, took the driving test and upon completion was given the keys to the kingdom that very day, no strings attached. Four months later, a friend borrowed his mother's Rambler and he, another friend and I drove to June Lake in the Mammoth Mountain area to camp for a week, completely footloose and fancy free. Life was different in those days, and how!

(it wasn't a monster, but then, again, it wasn't a cream puff—it had a 312 cubic inch engine in it).

As an aside: I remember messing under the hood one Sunday, then taking it to Santa Anita Racetrack to try it out on their wide-open parking field. Two cops stopped by to see what I was doing. I proudly said, "I've been working on my car." They asked, "What have you done?" I replied, "I changed the spark plugs and replace the rotor." Expecting me to say something more along the lines of, "I swapped out the carburetor for three Webber two-barrels," or, "I put in a new clutch," or, "I changed the transmission to four-on-the-floor," I'm sure they thought I was pretty lame.

Be that as it may, when it came to my physics students, I'd tell them about the hearse (for flavor), tell them about the station wagon, then point out two all-important characteristics of the Ford (features, I might add, that were typical of pretty much all stock cars of the era). It had *no seat belts* and it sported *bench seats* (not bucket seats). My car, in short, was the perfect vehicle for the MOB maneuver.

So much for a preamble. To make life easy from here on, I'm going to reproduce what I wrote about the MOB maneuver in the physics text I produced.[2] Here goes:

> In days of yore when rock-n-roll was in and the '55 Chevy was the *hot rod* of choice, there was a technique the execution of which guaranteed, if not romance, at least close contact between a guy and his date. It was called the *M.O.B. maneuver*.
>
> The Situation: A boy picks up his date (we will assume the boy is driving). The two like one another. The vehicle is a 1955 Chevy without seat belts (the norm for 1950's cars). It sports a bench seat (also the norm for 1950's cars). She gets in and sits next to the passenger-side door. He'd like her to sit next to him but doesn't want to seem overly aggressive and is, more to the point, too bashful to ask. She'd *like* to sit next to him but doesn't want to appear *easy*.
>
> Solution: the M.O.B. maneuver.

---

2 A teacher who had worked at Poly and had left to follow her husband back east wrote me months later saying, "I was walking down the hallway of my new high school, and as I passed the door into the physics room heard the teacher say *MOB maneuver*." Curiosity struck, she popped in to see what was happening only to find that the teacher was using my book and had lifted the MOB idea for his own physics students. How cool is that?

The Maneuver: Traveling at 30 miles per hour, the boy casually approaches an appropriate intersection (see Figure 5.19). Upon reaching the corner, he makes a hard right turn without warning.

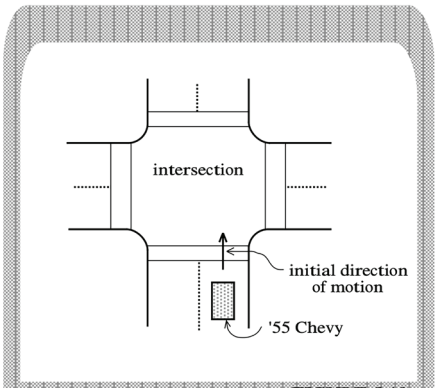


FIGURE 5.19

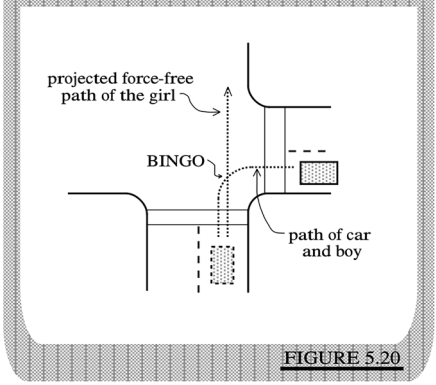


FIGURE 5.20

Consequence: She finds herself seated next to him in short order.

How so?

He is attached to the turning car via the steering wheel. As the car turns, the steering wheel exerts a force on him that makes him move in the *same semi-circular path* as the car. She, on the other hand, is *not* attached to the car (the maneuver works best if the seat has been waxed beforehand). As there are no forces acting on her, she does exactly what any force-free body will do—she continues to move *in a straight line* (Newton's First Law—bodies in motion stay in motion in a straight line unless impinged upon by a force). Doing so ensures that he and she will, indeed, meet somewhere around the BINGO in Figure 5.20.[3]

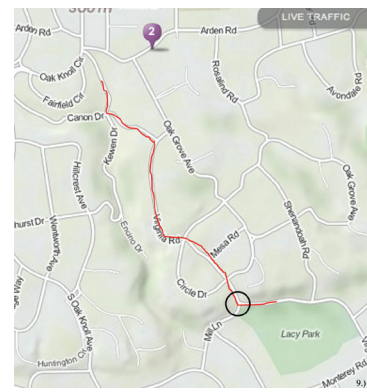
Note: You might wonder why it is called an MOB maneuver? Although it is probably *politically* and *socially* improper today, in the 1960's it stood for *Move Over, Baby*.[4]

[3] As I pointed out in Volume 1 when I talked about the book, I used Aldus Freehand, a program that went bye-bye about 30 years ago, to hand-create all of the hundreds if not thousands of graphics that went into the book, just like Figure 5.19 and Figure 5.20.

[4] In 2008, I asked the class what MOB stood for and one of my intrepid male students, a hip-hop fan, said, "Move Over Bitch." Yikes . . .

That's the MOB maneuver. In class, when I get done with the preamble and we talk about the idea of forces that don't make bodies *speed up or slow down* but, rather, make them *change direction*, I sometimes finish the class off (if time permits) with one last MOB-related story from my childhood.[5]

> I had a girlfriend when I was a senior in high school. She was quite hot, had beautiful, long, blond hair (the norm for girls at the time) that she knew I loved, and had quite a temper. (I didn't include the "quite hot" part, but the kids seemed to assume it in any case.)
>
> One Friday night, we got in a huge fight. I was so irritated by the time I got her home I didn't even walk her up to her door. I just pulled up, let her out and went screeching off.
>
> The next night we went to a movie. I arrived around 6:30 p.m. to pick her up and got quite a surprise in the bargain. She had been so pissed the night before that she decided to "get even with me" by cutting her long hair to collar length (she was clearly a bit of a psycho—who does stuff like that?).
>
> Even though it was screamingly obvious what she had done, I kept things cool, kept my mouth shut and off we went.
>
> She lived about four blocks above Lacy Park in San Marino. To get to the movie, we had to proceed passed the park (see the map—the red line starts at her house). Just as we reached the street that runs parallel to and above the park, I looked at her and mused to myself, "Jesus, I'd better not piss her off again to-

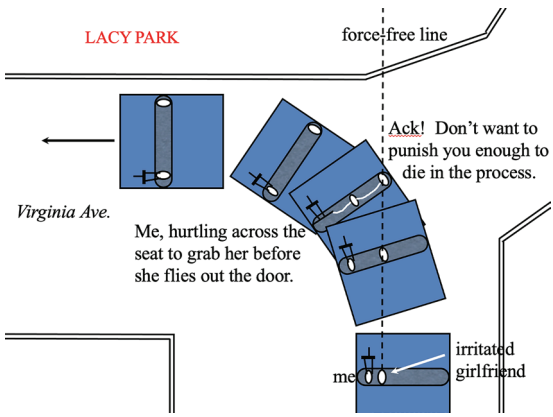


[5] I've found that students who are having trouble dealing with the physics sometimes look for things to be disgruntled about, and one of their favorites is to complain about my story telling. So although there are students who look forward to stories, I've nevertheless gotten to the point where I make them short, just so I don't have to deal with the complainers (they usually do their damage on Course Evaluations). This follow-up tale is one that I stopped telling years ago for that reason.

night. If I do, she'll end up completely bald by tomorrow morning."

With that, I smiled.

She saw the smile and said, "You're laughing at my hair." As I looked back at the road to get ready to start my hard left turn onto the street above the park (see the circle on the map—there is a STOP sign there now, but it wasn't there then), she slid away from me across the seat. I thought she was just moving to sit on the other side of the car, but in fact she'd decided she was going to *get out of the car*, presumably to walk home in a huff. I didn't realize what she was doing, so I began to enter the curve just as she was releasing the door latch. With the car moving into its left-hand turn, the door began to swing free quite forcefully with her hot on its trail. I realize what was happening, so with one hand on the steering wheel I launch myself across the seat and grab her by the arm just before she went flying out of the car and onto the pavement (to make sense of the sketch, start at the bottom and work up).



I hadn't meant to do it, but I nearly executed a *reverse* MOB. Needless to say, I said nothing about her hair for the rest of the night.

x

[Kay's next-door neighbor . . .]

At the time of my first acquaintance with Kay, her next-door neighbors to the south were Lilly and Allen. I've already talked about the two in a footnote in Chapter 15, but in the off-chance you don't read footnotes, I'll reiterate quickly.

Although both were nice to me and Kay, Lilly was a little bitty thing and a complete terror. Allen was a huge man, quite laid back and terrified

of Lilly who regularly berated him at the top of her lungs (we could hear her from Kay's house with the windows closed). Both worked in "the industry" as *dressers* for stars in plays, often at places like the Dorothy Chandler Pavilion in Los Angeles.

Allen was old school in the sense that he did all of his own carpentry, owned the rights to a mine in Arizona and was what was in the day called "a survivalist" (he had stores of food in his home just in case the U.S. devolved into anarchy). Allen was the guy who told Kay not to worry, that when the revolution came and the blacks from north Pasadena came down to plunder the white community, we could all congregate on his roof and he'd protect us with his WWII, tripod-mounted, bunker machine gun (yikes). Anyway, that was Lilly and Allen.

So one night, a group of my AP Physics students decided to play a prank on me. They gathered in front of my house around 2 AM armed with boxes of colored chalk, and proceeded to draw out in detail on my front sidewalk the lab that was due the next day. They included complete blurbs, free body diagrams, theoretical derivations and all the numerical calculations anyone in their right mind might want. There was a bunch of them, so I'm thinking that each kid took one square of sidewalk for his or her part and they did the entire deed in around five minutes.

This was a very cool prank to do. It obviously meant that the kids thought enough of me to go out of their way to pull the little joke off, which was very nice. What they didn't know, though, and what made the whole affair a bit spooky, was that Allen was a late-night kind of guy.

Not knowing who they were, he noticed that there were people out milling around in the front of my house. Thinking that someone was trying to do something awful to my car, which was parked on the street, Allen went and got his shotgun. I don't know what he thought he was going to do, but fortunately, the kids were just driving off when he finally made it out his front door.

He told me about the whole thing the next day. I remember thinking, *I can just see the headline now*: "Poly Students Shot While Doing Lab Write-Up on Teacher's Sidewalk at 2 AM."

I don't remember whether Allen had seen the sidewalk by the time we talked or not, but I made him promise then and there that if he ever saw young people out around my car again, he wouldn't shoot first and ask questions later. It seemed like the least I could do for my urchins.[6]

_____x_____

[6] After congratulating my students on a great prank the next day, I told them about Allen. They were horrified.

[The occasional "get" on someone else . . .]

Usually when I talk about pranks, I'm talking about pranks that students have played on me. What I'm about to write about has to do with something that happened that was the other way around. I am not, I might add, including this to convince you that I'm a clever guy. I'm doing it because I think it was funny and because this chapter is here to amuse.

Two relatively insignificant things happened at the end of the school year in 2009.

The first had to do with a student I had, Jordan, whose sense of humor was quite impish and a lot like mine when I was young. He had a bit of a rebellious streak in him, but on the whole we got along fairly well.

The last day of school that year saw me giving a test. This wasn't a joke and the kids muttered quite a bit about the whole affair, but in any case, at the end of the test during E period, Jordan turned his test in and made it for the door like a shoot. This was perfectly acceptable to me. He was done with this class and his natural elation motivated him to exit in haste. What he didn't realize as he went streaking out the door was that he left his car keys on the ground underneath his desk (more to come about this later).

The second occurrence had to do with a tradition that had taken place since my first year at Poly (or before, actually). It was the Honor's Physics/AP Physics softball game. It occurred during the last week the seniors were in class, and it was a social thing. Everybody didn't always show up, but the kids who did had fun.[7] When I was the only science teacher of seniors and both the Honors and AP students were mine, I'd always pitch for both sides (there were no strikeouts) and I'd cheat toward the end of the game in the hopes that the result would be a tie.[8] This infuriated lots of my

[7] Although we often did have good athletes in both the Regular and AP classes, there were occasions when things were one-sided. One particularly inept group of AP players one year made up for the inequity when they would come up to bat. Once at the plate, each would state loudly his or her SAT score, then with pride state the university he or she would be attending in the fall. As there were several perfect SATers and a number of Harvard and Stanford bound graduates, it was really very funny (not to mention a clever way to thumb their collective noses at the jocks on the field . . . though some of the jocks were going to Harvard and Stanford, too). Also, the field we usually played on had a very short left-field fence. When we'd play on that field, I'd make the right-handed jocks bat with a one-foot-long bat I'd made on a lathe (it was used in class to demonstrate *center of mass*) and we used a pillow ball (a ball larger than a softball that had the hardness of a pillow).

[8] My favorite late-inning move was to have someone on the losing team dribble a ball back

more competitive kids over the years, but it was remarkable the number of even games that came out of the activity.

What made this year's game noteworthy was that it was the first year ever that nobody in the Honors class showed for the game. I don't think it was retaliation for my having given a test the last day of classes (though there may have been a few who were so miffed that they thought, *what the hell, I've done enough*). I suspect the real problem was my fault. I'd always made a big deal out of the game in the past. This year I didn't. In fact, I didn't tell Jordan's period about the game until the day before. It was my goof and I was willing to take full blame for the apparent boycott.

Three days out of the week, Morning Meeting was communal (versus being just you and your advisees, which happened twice a week). The entire student body would congregate in the auditorium and Dr. Jamie Nielson, Upper School Head, would start the meet off with sports announcement. Other announcements from Jamie and the ASB (Associate Student Body) members would proceed, then people who had lined up across the front of the auditorium and along the front of the stage would come to the microphone one by one and make their announcements. That morning, I stood in that line.

When I got up to take my turn, I said approximately what I've written below:

> I have two announcements:
>
> First, I don't know if it was the awesome power of the Advanced Physics softball team that so scared the Honor's Physics softball team into submission, but for whatever reason, and for the first time in thirty years, the AP Physics folks won the annual Honors/AP Physics softball game by forfeit as not a single Honors Physics student showed up for the game. (At this point, a gaggle of people in the audience collectively let out a sympathetic "ahhhhhhh," which made me realize that people might think I was upset about this, which I wasn't. To cover it over, I continued.)
>
> I, of course, was mortified that my people—my peeps—would do this (at this point, I was hoping that the sarcasm

to me so I could let them get on first (I'd blow the throw), then have the next kid do the same. I'd scoop up the ball, turn toward second base, yell "double play" and proceed to throw the ball over both the second baseman's head AND the center fielder's head. I really wanted the score to be a tie!

would be dripping appropriately), but when I approached my folks, the accusations began to fly. It would appear, according to them, that I completely forgot to TELL anyone in the E period Honors class that the game even existed. This wasn't completely true, but it did make me realize that preparation and anticipation is everything.

I don't want to make the same mistake next year, so I stand before you today to make this announcement: JUNIORS: if you are thinking about taking either AP or Honors Physics next year, be aware. There WILL be a softball game sometime during the last week of your in-class year. You WILL attend it, and you WILL enjoy it. If you are the kind of person who carries a personal calendar, I want you to WRITE THIS DOWN RIGHT NOW! I'm thinking about making it a graduation requirement for next year.[9]

By this point, everyone knew I was kidding around and most everyone was laughing appropriately. It was time for my second announcement, so I said:

Second, I assume you all know who I am and who Mr. White is (Richard, the other physics teacher, also taught freshman physics along with his AP classes, so all of the students in the school knew him). Well, I'm tired of Mr. White showing me up. I mean, the man periodically gives his students CAKE (which he does, usually in a bag . . . the kids have come to call it *cake in a bag*). How do you compete with something like that? I'll tell you how you compete. I've decided to give my best student this year A CAR. This year's recipient is Jordan Smith.

At that point, I pulled Jordan's keys out of my pocket, let them drop as I kept a grip on the top of the relatively long lanyard they were attached to, and said:

"Jordan, come pick up the keys to your new car."

The seniors and some of the juniors recognized the lanyard and real-

[9] This is a favorite bullshit tag-line students have been using to comic effect ever since I'd been at Poly.

ized what I was doing, so they were howling and applause rang out from their ranks.[10] Pretty much the rest of the auditorium, teachers included, weren't laughing though, they were whispering to one another. They hadn't gotten the joke. And in fact, I had two teachers ask me later in the day if I was really giving a car away (one said she thought that I had, maybe, gotten a completely dilapidated, old junker that I was foisting on Jordan).

Realizing that there was a fairly large contingent that didn't understand that I was pulling Jordan's leg, I decided to make another announcement at morning meeting the following Monday. What I intended to say during that meeting was:

> Maybe twenty years ago, there was student named Yen Yen Chen. She was very sweet and, as I remember, a sophomore at the time.[11] There also was a senior guy at the time who, I might add, works here at Poly right now in the Tech Department, named John Yen.
>
> One morning while stalling for an Assembly act that hadn't yet arrived, and pretty much out of nowhere, Ted Griffin, the ASB Vice President and a very clever fellow—he went on in later years to write the 2005 script for the Kevin Costner and Jennifer Aniston's movie *Rumor Has It*—got up in front of the student body before the assembly and said, "If Yen Yen Chen married John Yen, her name would be Yen Yen Yen."
>
> It was so completely unexpected, people fell apart with laughter, myself included.
>
> That was a joke that was obvious and funny, and nothing beyond it had to be said.
>
> I, unfortunately, made an announcement last Friday during morning meeting and, judging from the questions I was asked by several teachers after the fact, I've realized that there was some misunderstanding as to what it was all about.
>
> Jordan and I have been trading good-natured quips all year long, so when he left his keys in my classroom last

[10] Unfortunately, Jordan wasn't in attendance at the time, so he didn't come forward to get his keys—I gave them to him later in the day.

[11] Funny, I ran into Yen Yen not two weeks ago (this is September, 2015). She is a three-season park ranger at Yosemite, a very cool job!

Friday, I decided to contrive an amusing way to give them back to him. That was what the "I'm giving away a car to my best student" thing was all about, and that's why all of the seniors laughed and applauded. They recognized the lanyard as being Jordan's. It was a joke.

So why am I up here again? I'm making this announcement as kind of a "truth in lending, truth in advertising" thing. If any one of you underclassmen have begun to mentally arrange your schedule to insure that you get me in the senior year thinking that, as your parents are probably not going to buy you a car, I might be your next best hope, stop planning. IT WAS A JOKE!

Unfortunately, I never had time to present my little soliloquy because the next several morning meetings did not have time for standing announcements, so for all I know, there could still be students hoping to get a car from me in their senior year.

_____x_____

[Poly and one amazing kid.]

[This comes more under the banner of "amusements I have known" than anything else. I wrote this in 2015.]

As should be obvious from all I've said to date, the school I teach at, Polytechnic School in Pasadena, California, is truly a remarkable place. As I pointed out in Volume 1:

—Our arts department regularly produces plays and musicals that are at a professional level. They also generate first class painters, pen and ink artists, sculptures, potters, wood workers and enamellers.

—Our language department has at one time or another had exchange programs with school in Russian, Germany, France and now China, and has had kids win trips to Europe as prizes for winning national language competitions.

—Several years ago, the AP folks decided to rank AP students for success on AP tests. They only did it for three years. Each of those three years, there were four or five students tied

for the number one spot. There was a Poly student amongst that crowd two out of the first three years the AP folks did this (they stopped awarding the honor partially because a kid from one school—our school—almost always seemed to be in that top few).

—The math program has one of the highest pass-rates for the Calculus AP test in the nation.

—The English department regularly has students winning national writing contests and has, on occasion, had student essays and poems published in national magazines.[12]

—Our athletic department has seen CIF champion teams in football, both girls' and boys' basketball, both girls' and boys' tennis, both girls' and boys' soccer (we've had two periods during which the girls' team has won CIF four years running), both girls' and boys' water polo, both girl's and boy's cross country, girls' softball, boys' baseball and girls' volleyball.

—The science department has on its faculty three graduates from Caltech, a medical doctor and several teachers with Master's degrees in their field of endeavor.

—It is not unusual for our Community Outreach program to find over 50% of the seniors doing some kind of volunteer work even though there is no requirement for them to do so in the senior year.

—There have been years when half the senior class have been National Merit Scholars, Finalists or Honorable Mentions.

—And although this isn't something one can quantify with numbers, there is a tremendous amount of good will between the students and teachers (and among the administrators, teachers and students). Poly students smile at you in the hallways. They go out of their way to say *hi*. They say *thank you* at the end of a class. The students are motivated, friendly and pleasant to be around. You can kid around with them without them being self-conscious about it.

—With all of that, in 2007 the Wall Street Journal ranked Poly as the #4 high school in the nation (this is a little misleading as we are a small school and the ranking was determined

[12] It's 2024, and apparently, we just had a student published in *The Concord Review*.

by figuring the percentage of graduating seniors that went to one of the top eight universities in the country—that year, Poly had just under 20% of its graduates go to one of those schools, which put us at #4). And in 2013, the Washington Post ranked Poly the fourth *most challenging school* in the nation (Poly was ranked #7 in 2014).[13] (This is a little more impressive.)

Every school has good students at the very top. Ours have been, by and large, no more amazing than anyone else's, public schools included. What has made Poly special in past years has been the fact that we have had very few kids who weren't outstanding in some area of effort, and the middle of our pack has consistently been *way beyond* in academic quality compared to the middle of the pack in most other schools. Couple this with the fact that most of our kids are genuinely nice people, and it is not hard to understand why I often say that I'm in teacher-heaven.

Still, every once in a while, we do get a kid who is way, Way, WAY beyond the norm. Just a few years ago, one such student passed through our hallowed halls.

His name was Macky Makisumi. He arrived (I believe) from Japan in the eighth grade speaking essentially no English. Learning English in a year in the Arcadia School District, he entered Poly as a ninth grader.

On his first day in the math class he took during his freshman year, the teacher (Laurianne Williams) made preliminary comments to the class and closed by saying, "And everyone will need to go out and buy a TI-85 calculator."

Macky put up his hand and said, "I don't need one."

Laurianne, the math teacher, said, "Well, really, you do."

To which Macky said, "No, actually, I don't."

Laurianne again said, "No, no, really, you are really going to need a calculator for this class."

Macky, who was very polite and a bit shy, replied almost apologetically, "No, no, really, I don't."

At this point, one of the students who had gotten to know Macky before school started realized that an apples and oranges thing was happening and moved to clear up the misunderstanding. He said, "Macky, what's the square root of 10,968,642.3 (or some-such number)."

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[13] Interesting (and I might add, this is being written in 2020), in just the last 5 years, decisions have been made by our administration that have changed our rigor-standing considerably. The Administration had good reasons for what it has done (I'll say more about this later), and it hasn't been a bad thing, but it has happened.

With no more than a moment's thought, Macky responded with, "3311.894".

The kid then pulled out a calculator, punched in the numbers and, lo and behold, verified that Macky had, indeed, done the calculation correctly in his head.

At that point, Laurianne said, "OK , everyone in the class will need to go out and buy a TI-85 . . . except Macky."

One of the remarkable things about Macky was that he wasn't an idiot savant. Sure, he could do math problem in his head with lightning speed, but he was also a very nice kid who had all sorts of outside interests. He learned how to dance in Poly's dance class. He wrote well. He started the Poly Juggling Club and taught other kids how to juggle. And he was, as I remember, number two in the country with a Rubik's Cube—something he could untangle in fractions of minutes blindfolded . . . literally.[14]

The main reason I'm talking about him here, though, has to do with something else he did in his freshman year.

Our Girls Service League (now known as the Woman's Service League, mainly because the boy's version is called the Men's Service League) raises money every year for a designated charity, and one of their money-making events that year was a talent show put on by the school's students. During Macky's freshman year, he decided to perform.

I was sitting in the second row (I'm usually in the back, but for some reason I ended up in the second row that year). Macky came out on stage with juggling balls and began to juggle three balls. A few students yelled encouragement, but on the whole the crowd was fairly subdued and, when he was done, everyone clapped politely.

He then pulled out an additional ball and juggled four balls for a time. Again, when done, everyone clapped politely.

He then pulled out another ball and juggled five balls. When done, everyone clapped politely.

To that point, everyone in the audience was watching appreciatively but without shock or awe. Everyone has seen someone juggle five balls. It wasn't that special.

What he did next, though, was different.

After the five-ball exhibition, Macky pulled out a Rubik's Cube and threw it out into the audience to be scrambled. When it was thrown back to him, he began to juggle again, this time with two balls and that Rubik's

[14] Check out his Wikipedia page and you will find that he holds *seven* World Records in the cube world.

cube. And as he did, he began to work the Rubik's Cube back to its pristine form *as he's using it to juggle in conjunction with the two balls . . .*

When people realized what he was doing, the crowd went wild. Within, maybe, twenty seconds, everyone in the auditorium was on their feet, pumping their fists over their head, moose-calling at the top of their lungs "Go! Go! Go!" and "Macky, Macky, Macky!"

I had never seen anything like it. It was mayhem. It was inspired. IT WAS COMPLETELY AWESOME!!!

It took him about forty seconds to solve the Cube, juggling all the while. The applause was deafening.

I don't regret much, but I sincerely wish someone had been taping that night. The experience was absolutely magical.

_____x_____

[No good deed goes unpunished.]

There was a program that was started years ago at Poly called the *Human Sexuality and Relationships* (HS&R) class. It was not required. It usually met for an hour-and-a-half on campus one evening per week for ten weeks. (When making mention of the fact that they would be going to the class on a given evening, the kids used to find great pleasure in saying, "We're going to have sex tonight.")

I did the training. It was a very cool program.[15] The class's only problem was that for it to run smoothly, there had to be an equal number of boys and girls. The girls were always interested. The boys, on the other hand, weren't so much.

One year, Tina, the drama teacher and one of the HS&R instructors, got up in front of the student body during Morning Meeting, and in an attempt to remedy the "too few boys" problem, tried to convince the guys in the crowd that the class was cool and something they should do.

I was in line to make an announcement a few people behind Tina, so when I got up to the microphone, I ad-libbed an endorsement for the HS&R class by saying, "Having to do with the HS&R class: Guys of

[15] One of the exercises they do sometime during the ten-week program is to have the girls and boys write down questions about the opposite sex that they've always wanted to know about. The boys would then sit in a circle and answer the girl's questions as though the girls, who are outside the circle, weren't there. Once done, everyone would switch positions and the boys would have a chance to hear the girls talk about things *they'd* always wondered about. As I said, very cool stuff.

Polytechnic School, *I'm beginning to worry about you*. There is a bunch of nubile females in the HS&R class who want to talk to you about SEX!!! WHAT ARE YOU WAITING FOR ????"

I then went on to make my own announcement.

As for the ad-lib, I was just trying to be supportive.

Later in the day, I ran into two women friends from the English department. Each, in her own way, crawled down my throat. You'd have thought I'd yelled FUCK, FUCK, FUCK at the top of my lungs to the student body. The bone of contention, it seemed, was found in the word *nubile*. I had used it properly but had not fully realized that its connotation was *an unmarried, sexually available young girl*.

Of course, I apologized profusely for my unfortunate choice of words (ignoring the fact that the words expressed nicely the point I was trying to impress upon our idiot boys), but from then on, any time I wanted to get a rise out of either of the women I would engineer a sentence in which the word *nubile* appeared.

It wasn't a prank, but it did become kind of a fun, standing joke.[16]

_____x_____

[Butchering the English Language.]

[This isn't so much a prank as a lament I wrote to Poly's student body after a particularly dumb thing that happened to me as I tried to attend a Poly girls' CIF water polo game. It's fun. Read along.]

[16] This wasn't the only interaction I had with Poly's feminists. For a period back in the ought's, we had a *poet's corner* of sorts during Morning Meetings. Kids could get up in front of the assembled student body and read poems or haikus they'd written. One day, we had a senior girl (she happened to be in one of my Honors Physics classes—she was very nice but had a slight *in-your-face* vibe to her) got up and said, "Hi, my name is *So and So* and I am bi-sexual." That was her poetic endeavor. Although I suspect she thought she was being edgy, everyone seemed to accept the statement at face value. In any case, a week later I went to Grace Hamilton, then head of the Upper School, and said I was thinking about making an announcement during Morning Meeting and I wanted to run it by her. My thought was to say, "Hi, my name is Craig Fletcher, and I'm bi-sexual . . . which is to say, if I want sex *I have to buy it*." Grace actually guffawed when I hit her with this, but we both agreed that as funny as the joke would be, it might look like a put-down of the girl, so I refrained.

My Favorite Peccadillo

by Craig Fletcher

Several years ago, Poly's girls' water polo team went to CIF. One of my students, the captain of the team, got up during morning meeting on a Monday and said, "We're going to CIF (cheers from the crowd)! Our first game is next Thursday, 3:00 PM, at the PCC pool. Everybody come."

As I hadn't yet gone to a girls' water polo game that year, I resolved to go. The only hang-up was that I had a dentist appointment that day. No problem, though. I could arrange things.

Thursday arrived. I got on my bike at 1:45 PM and rode down to Sierra Madre Blvd and Huntington Drive to have my teeth cleaned. At 2:40 PM, I was out the door and riding like mad man, uphill all the way, back toward PCC.

I made it, puffing like a choo-choo, with five minutes to spare. This was going to be fun.

I walked my bike to the pool, looked through the fenced gate, and instead of seeing Poly orange in the stands and a gaggle of young women in the pool, what I saw instead was a large number of very old, very wrinkled, very dilapidated looking men and women treading water and throwing large beach balls from one to another while floating.

I realize there are some at Poly who believe I'm more closely allied to the geriatric set than to our students, but this was clearly wrong. As I peddled home, I wondered what might have happened. Was it some giant practical joke the entire school had decided to play on me, saying the game was one day when, in fact, it wasn't?

Probably not. I am the all-important center of my universe, but I'm not so important to the rest of the school that it would collectively moon me in so disturbingly clever a way. Then it dawned on me.

The announcement was made on Monday. The girl had said "next Thursday." I had assumed that the word "next" was used to denote, well, NEXT, as in, "the next one you run into." That would have meant the game was three days from Monday (as in Tuesday, Wednesday, THURSDAY).

Unfortunately, the girl had completely ignored the fact

that "next Thursday" is not always in "next week." Indeed, next Thursday is in next week if the statement is made on, say, Friday, but it isn't if it is made on Monday or Tuesday.

So there you have it.

As I remember, I got up during morning meets the next week ("next" here correctly meaning the week after the incident) and said something about the tendency of people to misuse of the word "next." I tried to make my comments short and clever and funny. After all, it was kind of amusing the wild goose chase I'd been treated to the previous week.

In the weeks that followed, though, it became clear that only a very few had taken my admonition to heart. I'm not French—a people who have taken *being anal about their language* to a whole other level—but this was a bit disconcerting in a logistic sense.

When a person uses the word "next" in conversation, are they "educated" and using the word as it is defined, or are they mindlessly using it as is common amongst the *hoi polloi* (not to mention most of Poly's faculty . . . the English folks included . . . and OK, to be fair, the science folks, also)? If you want to understand what's being said, this delineation matters.

Now, I realize people (back to the English department) are going to say that language is an evolving creature and as usage changes, the meaning of words change. And in fact, you, as students, experience this kind of word-creep all the time. "There will be a "quiz" tomorrow. It will be over the entire semester and will determine your grade for the year, but we won't be calling it a test because there are already two of those on the Test Calendar for that day."

Or, "As an eighteen-year-old, you are an "adult." That is to say you are old enough to be trained by the military to kill people but, of course, not old enough to buy beer in the state of California." (And no, I'm not advocating that this law be changed.)

There are all sorts of instances in which words get twisted. The questions remain, though, "Should they be? And if not, shouldn't we resist?"

I think we should, but I am fairly sure there are lots and lots of people out there who couldn't be bothered. For those

folks, I'd like to leave you with the following thought:

It's winter break. You've been standing in line for the last hour waiting to pay for that cute little teddy bear you've decided to give your niece for Christmas. There is one person in front of you and a hundred behind you. You are tired and irritable, but that's OK. You're standing on the restraining line several feet from the window and there is nobody in front of you except that one guy at the register. It will all be over soon.

The person ahead of you finishes and leaves. You wait for the clerk to nod you forward, but instead he says, "Just a moment." He then proceeds to stand up and walk away, presumably for a bathroom break. More waiting!

The clerk finally returns and says, "Next."

With that, the guy behind you steps around you and proffers stuff to be rung up.

You immediately screech, "WAIT A MINUTE!"

The offending guy looks back and says, "He *said* 'next,' didn't he?"

You say, "Yah he did, chump!"

He says, "No need to get huffy. The problem here is that you just don't understand the English language. According to common usage, 'next' doesn't mean the next one you run into, it means the one *after* the next one you run into."

And with that bit of malarkey, I leave you to stew in your linguistic juices.

_____x_____

[The dreaded orange safety vest.]

One of the things my friends kid me about is the fact that there are very few faculty meetings at Poly during which I don't say something about something, so it wasn't too surprising to find me putting my hand up during the morning faculty meeting we had in December of 2009. What I had to say, though, was a bit "out there" even for me.

With the giant construction project that was happening on the south campus, car traffic and, more specifically, the picking-up and dropping-off of students by parents, had become seriously complicated. To show due

diligence, the school decided that it would post teachers at various key intersections and crosswalks for student safety. The teachers were supposed to wear orange vests when doing their duty. Very few teachers were doing so (that is, wearing a vest).

My comment during that faculty meeting was intended to get people to start doing this. As was not an uncommon occurrence, I managed to say it in an odd manner. I pointed out that lots of people were no longer using the vests, and that the whole idea behind the vests was to make each teacher stand out as an authority figure. I finished by saying that if teachers didn't want to stand out in that way (i.e., by wearing the vest), they would have to find other ways to draw attention to themselves . . . like, maybe, male teachers could wear Speedos and female teachers bikinis.

I'm not sure whether my inept presentation was what did it or the fact that nobody expected the word "Speedo" to pop up in a faculty meeting, but the net effect was that many of the attending throng met me with somewhat distressed and disbelieving looks. I had evidently laid an egg. Even Chris Schmoke, one of the fairly new teachers in the department (a great guy with a great sense of humor—he was a chemistry teacher along with being one of the football coaches) was noticeably, visibly chagrined.

The next day was Saturday. That night was Jill's annual "naughty or nice" holiday party. Held at Jill's condo, everyone attending was required to bring a $20 gift that was, as the title suggests, either "naughty" or "nice."

Examples: One year I brought a bunch of off-color bumper stickers such as "I know, I'm fat. But you're ugly and I can diet," and one year, Kim—one of the AP Bio teachers at the time and a very sweet, somewhat shy young woman—managed to draw a candy-cane colored, vibrating dildo (that dildo has become the standard "re-gift" item for each year's party).

During the gift-giving part of the party, the idea was that when your turn came, you could either open a gift or "steal" a gift from someone who had already opened theirs. If you stole, the loser would have to go back and open another gift due to the theft. The whole idea was a hoot. It was always attended by a goodly number of Poly teachers along with others of Jill's friends.

That year, I decided it would be amusing to build on my previous-day gaffe, so I wrapped a gift that was designated specifically for Chris Schmoke (that is, even though the gifts were supposed to be generic, mine actually had his name on the card as the named, expected recipient).

What I hoped for was that when his turn came up, I'd say something to the effect of, "Oh, Chris, I noticed there was a gift up there that has your name on it . . . ," and he'd be the one who would go through the opening

of the package. It turned out the Schmokes couldn't come to the party (his wife had given birth a few weeks earlier and they just couldn't make it), but that was OK. It gave me the chance to pick his gift, mention that it was addressed specifically to him, and to say that because I'd always been jealous of him (pretty wife, nice family, good looking fellow, football coach, etc.), I was going to steal it from him anyway and open it . . . which I did.

What I "found" within was the following: There was a letter, purportedly written and signed by Upper School Head Jamie Nielsen (sic), who just happened to be at the party that year and who also had a great sense of humor. It read:

> Dear Chris:
>
> It is rare within the annals of high school falderal that a man has done as much for his institution in the ways of leadership and morale building as has been the case with you, Chris Schmoke. It is with that in mind that I appeal to you for help on an issue I have brooded long and hard about, and that I feel requires immediate attention.
>
> One of your colleagues, a man whose sterling reputation, dedication to excellence, modesty and general all-around good looks are legendary, tried desperately to impress upon the faculty in the last faculty meeting the need *to be noticed* when doing crosswalk duty before and after school. Even though this paragon of teacherhood spoke elegantly and with passion, I am mortified to report that many teachers are still reluctant to wear the oh-so-flattering *orange vest* that the school has provided, at no small cost, for the teachers to wear when doing their duty.
>
> I must admit, there are times when I fear I may be misunderstood and, as a consequence, may be accused of micromanaging (Jamie guffawed at this line as he knew he was, indeed, a serious micromanager—again, nice sense of humor). I have nevertheless, in my position as high poobah of the upper school, decided to act for the good of the institution and institute a new *dress code* for those who do said duty. I want you to be the poster child for this edict.
>
> Enclosed you will find the new attire that will be required of all men who do crosswalk duty at Polytechnic School. The outfit was designed by a contingent of gay Poly

alums who have assured me and Debbie that the outfits are both tasteful and, more importantly, will actively catch the eye of nannies, fathers, mothers and grand parents alike, all of whom need to be aware of your presence as the arbiter of traffic-flow on Cornell before and after school. The outfit is NOT TO BE MODIFIED OR ADDED TO, being designed to affect the optimal reaction of those who see it. (Please note that there is a warm-weather uniform and a cold-weather uniform enclosed.) I do apologize for not ordering the outfit in Poly orange. We had to go with red instead as that seemed to be more conducive to our goal. In any case, I will expect you to wear whichever of the unmodified outfits you choose during your next tour of service.

On behalf of Debbie and myself, I want to thank you again for being the service-oriented professional that we know you to be. You are doing me, Polytechnic School, the city of Pasadena and our great nation an enormous service for which you will undoubtedly be rewarded when and if you ever get into heaven.

God bless you, Chris Schmoke.

Sincerely,
Jamie Nielsen
Head of the Upper School

P.S. Remember, the whole idea, and what is crucially important, is that you present yourself in a way that makes you NOTICEABLE while doing your duty! Also, be sure to model the attire as you further open up this package.

That was the letter I, on behalf of the supposed head of the upper school, wrote and read to the assembled throng.

I then proceeded to delve into the box. I pull out a whistle, which I tweeted. I pulled out a pair of white, paper, cut-outs shaped as hands upon which were inscribed in large letters the word STOP (these had rubber-band straps stapled to their backs so they could be worn like fake gloves). I pulled out an orange vest (there was applause when that came out of the box).

I then looked into the box and said, "There don't appear to be any shoes in the box. I guess adherents of the dress code will be expected to

go barefoot. I also don't see any pants . . . "

With that, to GREAT applause, I pulled out a shockingly red jock strap (for those who wonder, no, you can't buy them that color—I had to dyed mine red). On it was a note that said, "For warm weather wear."

That was followed by a pair of lacy, red, female panties with a note that said, "for cold weather wear."

All of this I modeled.

I must say that the gift wasn't stolen by anyone, though I did have several women in attendance ask for the panties.

_____x_____

[Let's all laugh at the idiot teacher. :)]

I have a terrible time remembering names. I always have.[17] It hasn't been that I was being lazy about names. It just seems that my brain isn't geared to remember that kind of information easily.

I warn my students about this at the beginning of each year. I tell them, "I will get your name sooner or later, but if I pass you in the hallway, look at you hazily and just say *hi* instead of *hi, John*, it means I am not there yet. It will happen, though. Be patient."

Bottom line: Historically, it has always been like pulling teeth every year to get my brain to put names to faces (though, oddly, I seem I have been getting better at it in my old age . . . ?).[18]

Several years after I started at Poly, I had a class in which there were two Asian boy who were friends and who just happened to look alike. At the time, a common stereotype in the minds of some Caucasians, and a standing joke amongst our Japanese and Chinese students, was that *all Asians look alike* (a ridiculous thing to maintain, I might add, but that was the times).

Please understand, that wasn't what was going on in this instance (that is, me being un-pc). They really *did* look quite similar, brother-like,

[17] I think I mentioned this somewhere, but when I was in college, I'd have to look at the ash tray that had the names of all of the guys in my fraternity house on it when I'd get back from Winter Break because I'd have forgotten nearly everyone's names during the two or three week vacation.

[18] I will also add, as a side note, that Richard came up with a great way to work with this problem. He suggested taking my iPhone, setting it on video, and having it passed around the room with each kid, while looking into the lens, say his or her name. That way I could play it later, putting face to name and getting the pronunciation right to boot. It was a great idea!

even. In any case, the two boys sat at one of the back tables on that first day with John, who wore glasses, sitting on the left and Bill on the right (I'm making up names for convenience because, you guessed it, *I can't remember what their names actually were!*).

The memory techniques I've tried over the years have varied, but at the time I was working on associating physical characteristics of the students with their names—long or short hair, tall or short in stature, wore glasses or didn't, anything that came to mind as an identifier. That year, as usual, I tried to pin down who was who on the first day of class.

The second day, the kids arrived at the appointed hour. I was feeling pretty confident that I had at least some of the names under my belt, so I started around the room, saying the names I knew as I went. When I got to the friends, both of whom appeared to be sitting in the same seats as the day before, I mentally identified John with his glasses sitting on the left and triumphantly said his name.

The class went into uproarious laughter.

It seemed the two imps had switched identities. They knew they looked alike, so John gave Bill his glasses, they swapped seats so that the glasses-sporting kid was sitting on the left, and I dutifully fell into the trap.

God how I love this job.

_____x_____

[Forget something?]

One day, again years ago, I was lecturing at the chalkboard in the physics room (I do miss chalkboards—scratching your fingers across a white board to wake the kids up just doesn't cut it). I turned to write something down and, when I turned back to the class, found that every boy in the room had quietly removed his shirt.

What I was seeing, in other words, was a room full of half-naked guys, all of whom were sitting as though nothing out of the ordinary was taking place. It was hilarious. (It was also something that could never happen in this day and age.)

_____x_____

[The White Mamba.]

I mentioned this earlier, but there have been tens-of-years of time

when, at the end of a particular school year, I've thought to myself, "OK, it's time to die. I can't imagine ever again having a better year with a better group of kids." What has been amazing has been that I've felt that exact same way the *next* year about *that* crop of kids . . . year after year after year.

Kids will be kids, though, and one characteristic that is ALWAYS present is their interest in slowing me down by pulling me off topic and away from talking about the physics at hand. They aren't being bad. They're just being kids.[19]

So it was a spring day at the end of the 2011-12 school year, and a bunch of my urchins had trudged up from their last period class in English (these rooms were located at the south end of the south campus) to the north end of the football field where the science bungalows were (the Mudd Science building had been torn down the previous summer to make way for the new science/math/library complex the school was building that year, and the science folks were having the thrill of teaching in bungalows way, way, way far away from the main campus).

Class had finally started and I had just given my Honors kids a problem to chew on. I was sitting behind the centrally located demonstration table at the front of the room, and having no more use for a piece of paper sitting before me on the table, I wadded it up and loft it fifteen or so feet across the room into a wastepaper basket next to the door.

Several of the kids saw the shot and began to applaud. Next thing I knew, the *entire class* was applauding, then *standing* and applauding.

I began to smile at the absurdity of their making such a big deal out of my making the shot, and the more I smiled the louder they got. I tried to get them to settle down, grinning like a Cheshire cat all the while, but they wouldn't. They'd found a way to slow class down, and they weren't going to let it go. In fact, they applauded for FIVE MINUTES before finally petering out.

The kids knew what they'd done, and that I'd been willing to let them do it, so there was all sorts of laughing and cajoling after the fact. And in the aftermath, one of the kids suggested that my shot was on par with the fireworks provided by the Laker star Kobi Bryant, who was apparently called *the black mamba*. The kid suggests I be called *white mamba*.

It was a very funny moment.

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[19] I was well aware of the usual ploys design to get me off track, having done a similar thing to my own teachers when in school. There was one teacher at San Marino High who, if we could just get him talking about World War II, would be done for the day.

As a small addendum: Though I got great amusement out of their raucous behavior, I obviously didn't learn from the experience. Two weeks later, I absentmindedly found myself taking and making another long shot during class. Big mistake, but this time, along with the standing ovation, I was met with chants of *white mamba, white mamba, white mamba*.

From then on, as pooish as this is going to sound, every time I got the urge to take a shot, I'd stifle myself, choosing instead to get up, walk to the basket and executed an applauseless dunk. One can only take so much fun.

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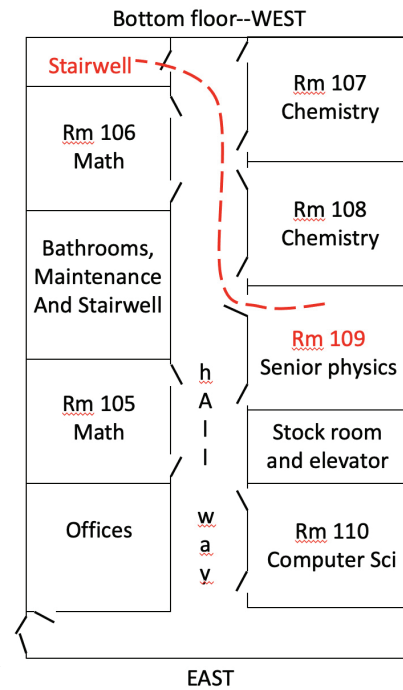
[Who put that wall there?]

While I'm talking about pranks that weren't pranks, I have to say something about the one I more or less played on myself.

Poly now has a wonderfully delightful new, three-story math/science building, complete with school library on the top floor. During its first year in existence, it became one of the main focal points of student life on campus.

Due to some nifty architectural dancing and prancing, the first floor is underground but has *outside windows* in each room (they created sunken areas by digging out next to the windows—very clever). The first story, shown to the right, houses math, chemistry, physics and computer science classrooms. Room 109 in the sketch is the AP and Honors Physics room (it's labeled "senior physics"). All of my classes are in 109.

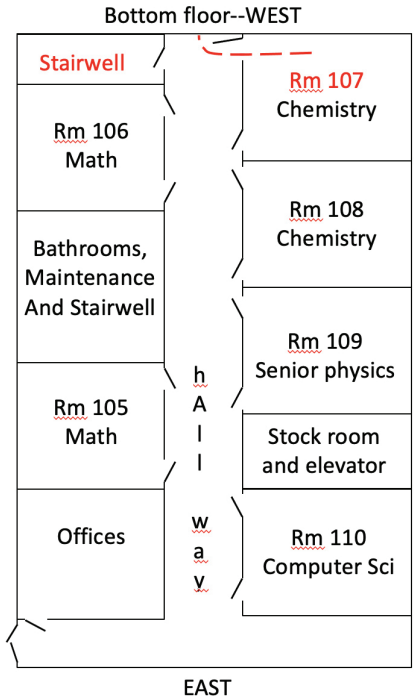


The middle floor (not shown) houses more math classrooms along with the biology classes and the Freshman Science classroom. This is also where my office is located (it is on the *west end* of the building, which is at the top of the sketch, next to the stairwell).

The path I normally take to my office after class is shown on the first schematic. I go out 109's door, take a hard right, walk down the hall to the stairs, go left up the stairs and I'm at my office's doorstep.

It didn't take long for me to take that path so often that it just became second nature. Out the door and to the right, down the hall, then left through the stairwell door and up the steps.

During the second semester of the first year we taught in the building, I additionally taught a very fun mini class called "Cosmology, Astronomy and Relativity." It was housed at the far west end of the building in what was normally the chemistry room, Rm 107 (the sketch of that set-up is shown to left). It was also on the bottom floor.



So one day, as I'm exiting the Astronomy class in Rm 107 without thought, I do what I always do. I walk out the door, turn right . . . and run right into the wall (again, see sketch).

I have no idea what the students who witnessed this navigational farce thought, but as I was bounding up the stairs (I've always bounded, ever since the house in San Marino with the "Charge" reminiscent of *Arsenic and Old Lace*), I had to laugh . . . a lot. It isn't every day that our students are treated to the sight of a teaching bouncing in full flight *off a wall*.

_____x_____

[More mindless fun.]

It was just before class and I was telling one of my early-bird students that we needed to be out of the room right at the end of class. What I said, exactly, was, "We need to be out of the room right at the bell because the White folks have to take a test next period."

The guy I was talking to, one of my black students and a very nice young man, looked at me oddly, then with a wicked smile on his face asked, "When will the *other* folks be taking their test?"

It took a second to register, but when it did, I roared with laughter. I had overlaid two perfectly reasonable sentences ("We need to be out of the room right at the bell because the AP folks have to take a test next period," and "We need to be out of the room because Mr. White's kids need to take a test next period") to generate the inimitably un-pc statement, "We need to

be out of the room because the White folks need to take a test next period."

Let's hear it for the English language and the convolutions my brain seems able to animate with it. And let's also give a respectful nod to how quick my students are. That kid saw right through the goof and frolicked with it.

I proceeded to tell the story to Mr. White and Ms. Bush and anyone else who would listen (including Jamie Nielson, head of the Upper School). It was funny stuff.

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[A TV Screen on the ceiling.]

This story happened during my stay in the Huntington Hospital four months ago (I think this was written sometime around 2013). It was bizarre enough, and it's what my fraternity brothers would have called a *self-get*.

Background: For years, I have had a knot in the back of my neck, a kind of muscle spasm that never goes away. I have also had migraine headaches which I've suspected were caused by a lack of blood flow up through the neck to the brain. In addition to this somewhat minor inconvenience, on January of 2013, my left arm stopped working correctly. I couldn't raise my hand up to my chin; there was clearly a big problem in the shoulder that was causing the debilitation.

I went to see Dr. Vahe Pannosian, a fine fellow with a great sense of humor and a really nice guy. He was the orthopedic surgeon who did the arthroscopic surgery on my knee years before. I told him about the two complaints, the shoulder and the neck, and we decided the shoulder was more pressing and should be dealt with first.

An MRI was done three weeks before the operation. It suggested that the ball attached to the arm that rotated in the shoulder socket was messed up, and that he should be able to mend it.

In fact, when he finally operated, he unfortunately didn't find something that was repairable. Rather, he found what he called "corn flakes." For some reason, the shoulder ball had degenerated considerably since the MRI. (Fortunately, after the "cleaning out," the arm worked fine.)

During the post-surgery office visit, I remember him asking what I had done that might have instigated this deterioration. I said I couldn't think of anything, except, maybe, that I had dead-lifted eight 90-pound bags of concrete that had to go back to Home Depot before the surgery

(if I'd left them for after, I'd have had to wait until I was healed and I was afraid rain might happen in the meantime turning my bags into solid blocks—finding a place to put around a thousand pounds of hardened concrete after the fact was not something I wanted to hassle with.)

He wasn't amused.

We will see how long my shoulder lasts . . .

Because he only cleaned out the shoulder area, it only took six weeks to heal. During my last post-operative office call, I revisited the neck problem. He said his group had a spectacularly talented neck specialist, a Dr. Walter Burhnam, and that he (Dr. P) would get me in to see him. In fact, Dr B. was done-under with patients and didn't have room for me in his schedule. Dr. P apparently put my X-rays directly on Dr. B's desk with a note saying something to the effect that I was someone worth seeing, so Dr. B took me as a patient.

Another MRI showed that I did have a bit of a problem with my neck in the form of three crushed disks. A combination of arthritis and hard living had done the deed, and it needed to be tended to. The operation was somewhat cutting edge—he went in through the front of the throat—but it had a very short convalescent time associated with the technique and was leaps and bounds quicker to heal than were the older styled operations.

The surgery was scheduled for 12:30 PM at the Huntington Out-Patient Facility. The intent was to get me out and home by 8:00 PM on that same day. Due to a couple of emergency surgeries, I wasn't wheeled into the operating room until 2:30 PM. This made my discharge too late in the evening, so they had me stay the night.

The Huntington Hospital is an "institution" in the Pasadena area. It was at the Huntington fifty or so years earlier that I had my spleen removed after having it cracked due to a collision at home plate as I was trying out for catcher on San Marino High School's freshman baseball team. The place had changed considerably since then, what with all the building they'd done.

After I left the operating area for the *crushed disks* surgery, I was put in a single room in the new wing of the Huntington, a very posh affair. I became conscious around 5 PM, had some dinner a few hours later (an omelet) and watched TV for a while. Around 11 PM, I tried to go to sleep. Unfortunately, I couldn't because I had a horrible nerve pain running down my neck, along my clavicle and out to my shoulder. I complained to the nurse who, at midnight, gave me a dose of morphine.

Morphine is amazing stuff. I went to sleep almost immediately, had

a great night sleep and woke up thoroughly refreshed. The clock told another story. When I looked at it, I found to my surprise that only *five minutes* had passed since I'd dozed off. I went back to sleep almost immediately. I had a great night sleep, awoke thoroughly refreshed, looked at the clock and, again, only five minutes had passed. I did this, probably, five or six times, each time awaking thinking it was morning, feeling really good only to be amazed to find that practically no time had elapsed at all. (I remember about half-way through this thinking, "Boy, this is going to be *one really long night*.")

The nerve pain didn't really go away, though the morphine made it better. Around 3 AM, I called the nurse and said it was still bothering me. She gave me a second, more powerful dose, and I went back to sleep.

When I woke up a little later in the night, I realized something that was absolutely dumbfounding. I hadn't noticed it before, but as I lay there gazing upward, I realized the builders of the new wing had glued a 42-inch flat screen TV to the ceiling (presumably so that people lying on their back could watch TV). Next to the TV was glued a clock, and on the other side of the TV, to make things homey (I guess), they had glued a picture.

I went back to sleep musing to myself how clever they were to realize there was a problem, then to come up with so innovative a solution.

The next time I awoke, there the TV, clock and picture were, and again I marveled at the cleverness of the people who designed the room. Really innovative, I thought. Then, just before I fell back asleep, I realized what was happening.

I normally sleep on my back, so when I wake up, I am always looking up at the ceiling. But because they wanted to guard against my throwing up, possibly having some of the vomit going down my air passage (according to the WFR folks, it only takes about an ounce of vomit down the air pipe to cause pneumonia within two weeks and DEATH shortly thereafter), they had positioned me sitting up. That meant that when I woke up, even though history had me convinced that I was looking at the ceiling, in fact I was looking at the wall across the room . . . a wall upon which resided a 42-inch flat screen TV, a clock and a picture.

Through the morphine haze, I had completely faked myself out.

_____x_____

[Squealing horribly.]

The following story isn't really a prank so much as an unusual inci-

dent that, given its moderate amusement value, I'm including.

You have probably noticed that instead of writing this autobiography in one sitting, I've been picking away at it for years. It has been a kind of recreation, of sorts.

It is now February, 2013. Being winter in California (kind of an oxymoron), and as I always turn the heat off in my house around 8 PM so the temperature in my room at 6 AM will be around 60 degree (brrrrr, eh Chicago?), my cat has taken to sleeping underneath the covers at night, wedged up against me. I haven't gotten a big head about her desire to be near me as I'm pretty sure she is doing it for the warmth, but one night about two months ago, something really weird happened.

It was 3 AM and I was dead asleep only to be awakened by a horrible squealing accompanying all sorts of scooting and crashing around on the deck outside the sliding glass door in my bedroom. The cat was out from under the covers immediately, as was I.

Stumbling over clothes on the floor on my way to seeing what was happening, I looked out through the glass door and saw on the second-to-bottom step a very large body on top of something. The body on top was clearly in attack mode. The squealing sounds coming from the pile were intense.

I pounded on the glass. The attacker looked up. It turned out to be a large raccoon. With all the noise I was making, he popped up off his prey and shot down the steps and onto flat ground, then turned and looked back at me defiantly with an attitude of, "What the fuck!!!"

I tried to see the color of the apparently lifeless body on the step, hoping it didn't match the color of one of the neighborhood cats that frequented my back yard.

It didn't.

The raccoon just sat there during those few moments. That led me to believe he was waiting for me to quiet down so he could go back and finish off the hapless animal he had been mauling. That wasn't going to happen, not in my back yard.

I banged on the glass door some more. The raccoon on the flat just sat there, but this time the lump on the steps jumped up and shot down to the bottom, too.

Turning, I saw it wasn't a "hapless victim" but, rather, the biggest raccoon I had ever seen in my life (really, and well fed, too—it had a spectacularly luxurious, puffed out coat—it was gorgeous). Having reached his (or her) compatriot at the bottom, *both* of them glared at me as if to say,

“Really? WHAT THE FUCK!!!”

I don’t know if any little raccoons came as a consequence of that night’s festivities, but I wouldn’t be surprised to find that the two of them left my backyard thinking, “No wonder humans are so messed up. They have no romance in their hearts and they clearly don’t understand the joy of hooking up!”

_____x_____

[Poly Senior pranks . . .]

Although it has been curtailed in the last few years for all sorts of reasons, it used to be traditional for Poly seniors to pull an end-of-the-year prank designed to amuse. One year, for instance, they came the night before their last day of classes and set up an entire classroom, desks, portable whiteboard and all, on the roof of one of the buildings circling the central courtyard. For another year, they made the entire school into an amusement park and charged mock admission for students to enter in the morning.

One of the most colorful happenings, though, came when they filled up the lower floor of administration building with God only knows how many blown-up balloons (see photos).

Not always, but often our kids were quite clever.

_____x_____

[An observant student.]

One of the highlights of my life has been my daily bike ride to Poly, even in the rain. I especially enjoyed winter days when it was so cold I could see my breath as I exhaled. I had great gear, so I'd be bundled up like an alpine trekker, thoroughly enjoying my ride in complete comfort.

Unfortunately, with my very warm jacket, I could sometime arrive overheated and pitted out (this being on cold days, but not super cold days). To remedy the problem, I had a container of Brut deodorant available in my office.

So I arrive one morning rather stinky. I put on the Brut, which has a very nice scent, just before going to give my first period class a test. During the test, a girl comes up and asks a question, standing appropriately close to me as I whisper my response (whispering because I was trying not to give gratuitous information out to the rest of the students). She says *thanks* and goes to finish the test.

Two weeks later, the school asks the students to evaluate their classes. I get my evaluations back a month later, and one of them reads, "Mr. Fletcher is a really nice guy, and he *smells* good, too." The comment had to have come from that girl . . .

Pretty funny, and imagine an administrator trying to figure *that* one out without context.

x

[A Tech legend.]

When I was writing my AP Physics text, computers were newish and I didn't like reading off a computer screen. To remedy the problem, I'd create a chapter on the computer, then print it out on paper using my huge, tabletop printer. From there I could comfortably proof-read the chapter.

Each proofread would find tons of mistakes, so I'd make corrections, then re-print the revised pages. This process created a serious amount of paper waste. To cut down on the squandering, I began to use the reverse-side of the throwaways for subsequent printings.

The printer I owned outputted the print copy into a secondary tray, as all printers do. When that printer died, I bought a new one.

So imagine you are writing a book. You've made a paper copy of the chapter you are working on using the "old" printer (before it dies), and you've proof-read it. You've identified mistakes on pages 207 and 208 and

you've made the appropriate corrections. You put the corrections into the computer, then re-print those pages using your *new* printer.

Now imagine going through that entire process, except when you go to the printer's output tray you don't find the printed pages 207 and 208, you find the printed pages 873 and 874—*pages from a chapter-file that isn't even open*.

That's exactly what happened to me after I bought that new printer. The very first time I used it I got printed pages I hadn't requested. There was clearly a serious coding glitch in the new printer's software.

I took this very strange problem to Ryan Katsuyama in Poly's Tech Department. Ryan was very knowledgeable techie (in later years I also got huge amounts of help from Patrick Carpenter and Cyril Hicks—all good friends). Ryan and I put our heads together and came up with *nothing*.

Several days later it dawned on me what was happening. With my old printer, printed pages would output to the output tray with the copy facing *upward*. The new printer outputted printed pages face *downward*. So if there was something on the backside of the paper I was using (like copy from pages 873 and 874 made during an earlier printing), *that* is what would show facing upward in the output tray. In other words, if I had just flipped the pages I'd pulled from the printer over, I'd have seen my pages 207 to 208.

For whatever reason, I was constantly having screwball things like that happen. And because it has always been a bit of a chuckle for the tech folks to figure out my latest snafu, you can see why I've become a kind of legend around the Tech department.

_____x_____

[A superposition of waves.]

My style of teaching saw me telling a lot of stories. Some students liked that, some didn't. I did it because I thought linking physics to the real world wasn't a bad idea, because I wasn't averse to giving my kids a rest from the intellectual stuff on occasion, and because I liked telling tales.

One such gallivant had to do with what is called *the superposition of waves*, and the story was centered on something that happened between my sophomore and junior year of high school.

That summer I lived in the condo my family owned in San Juan Capistrano. While there, I took a Summer School class at San Clemente High School. This was a very cool thing to do as it gave me a chance to meet

locals in a relatively natural setting (I even got into a drag race between my ’56 Ford station wagon and a friends '55 Chevy—the Chevy blew me away, but it was fun and half the summer school was out watching—we did it on the back forty of the high school). My primary hang-out was the San Clemente Pier (that's the pier at sunset at low tide in the photo to the left). My best friend was a guy named Lenny. Lenny was a piece of work. He was the first guy I’d ever run into who didn’t part his hair on the right or left side of his head, but right down the middle.

A few days after Summer School ended—it was mid-week and the day was overcast and cold—I didn’t expect anyone would be at the beach. Around 10 AM, Lenny shows up all excited and tells me, “Put on your trunks—you aren’t going to believe what’s happening at the pier.”

I complied. As we were driving to the pier, he tells me there is a storm at sea that is producing FIFTEEN-TO-TWENTY-FOOT-WAVES at the beach. He wants to go body surfing. I’m all in.

Body surfing when I was a kid was a simple affair. Nobody used fins or boogie boards, it was just you and your trunks (if you were lucky). When we got to the pier, things look relatively calm. We went into the water about a hundred yards north of the pier and swam out to about half the pier’s length . . . and there we waited.

I was treading water, looking toward shore; Lenny was facing me looking out to sea. We talked about cars and girls and the usual stuff, then Lenny stopped mid-sentence. This was weird. I look at him and his eyes were big as saucers. I looked around (out to sea) and there, coming straight at us, was the biggest wave I’d ever seen. Not being very bright, we both began swimming toward it, hoping against hope that we’d get to it before it broke thereby giving us a chance to catch it. We didn’t make it. When it became evident that it was going to break before we got to it, both he and I went under (as was the reasonable thing to do when you knew you were about to get shmushed).

I was pretty much freaked by the size of the beast, so when I went under, I went all the way down and grabbed hold of the bottom (as if digging my hands into the sea floor was going to help). We both waited for the wave pass over, then popped up talking wildly about “the size of that wave.” Then Lenny stopped talking. I looked around and saw the second

biggest wave I'd ever seen in my life. Once again, we started swimming toward it . . . and didn't make it. This happened, maybe, three times before everything calmed down. By that time, we were farther out than we'd started, maybe two-thirds of the length of the pier.

We sat, treading water. As we talked, we came to the conclusion that trying to catch these behemoths was insane. Rideable waves have a form that allows you to catch them, then angle down their face. These waves weren't like that. Their entire wavefront was crashing at the same time.

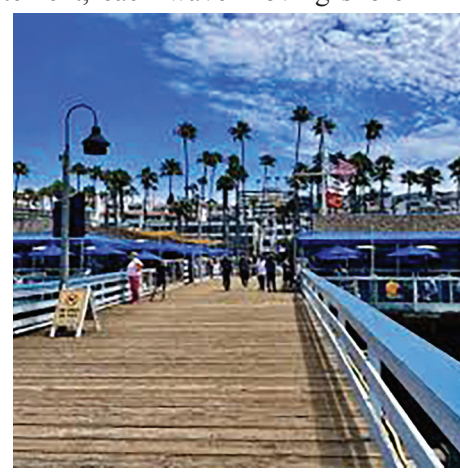
Defeated, we began to swim in. This was not easy. All that water that had been dumped beach-side needed to go somewhere, and where it was going was back out to sea toward us. In fact, there was so much water that there were SEVEN-FOOT-TALL WAVES coming out at us.

By the time we were about half the pier's length in, another set started up. As soon as we saw it, we began swimming toward it thinking we might catch one (and yes, that made no sense—it was as though we'd completely forgotten our conclusions about the unrideability of the waves and were just going on instinct).

We didn't make the first one, naturally, so we had to duck it. Remembering our previous conclusion and coming to our senses, our next move was to try to swim toward the beach with the waves chasing us. That is where the superposition came in.

As we were being buffeted by these 15-footers, the 7-footers coming out from the shore would superimpose with the 15-footers coming in, and there'd be, like, a 22-foot-high wave produced for just an instant as the two passed one another. Superposition of waves in nature. It was amazing.

And as an additional bit of excitement, each wave moving shoreward was so big that water at the wave's crest would jam up against the underside of the pier and shoot up, maybe ten feet, between the pier's floorboards (these were railroad ties laid side by side up against one another—you can see the flooring in the photo on the right). Again, absolutely incredible, with these sheets of water shooting upward in succession as the waves moved under the pier.



I did love telling physics stories.

_____x_____

[One last happening.]

One year, the Junior Class outdoor education trip saw the entire class float down a stretch of the Colorado River in canoes. I don't remember the year, but it must have been early on in my Poly experience as Jim Parkman was on the trip with me. It was particularly hot that year with temperatures in the 100's.

About 2 AM on the third night, a student came to wake Jim up to say that his tent-mate was sick. I was in my sleeping bag fairly close by, so I could hear the conversation.

Part of the fun of the trip was that the students formed themselves into food groups. Being in charge of their own meals, every group had one or two ice chests. Apparently, the sick kid had brought fried chicken which he had dutifully placed in his own small ice chest, but he hadn't bothered to put ICE into the chest. That meant the chicken sat in 100-degree weather for three days before the idiot decided to eat it.

Food poisoning is never fun, but this kid's response was way beyond normal. He experienced projectile-vomiting AND projectile-diarrhea, at the same time, *all the while being in his sleeping bag*. Very embarrassing!

Fortunately for him, it didn't kill him and the next morning, he was shaken but OK, At that point, the problem became *what do we do with the sleeping bag?* He didn't really need it due to the heat, but he couldn't use it in any case because of the disgusting state it was in. We couldn't leave it by the wayside; we had to take it with us. But how?

Our solution was to ball it up into a tight wad, then duct tape the daylights out of it. Nobody was ever going to be able to use it again, anyway, so entombing it in its own little cocoon wasn't going to be a problem. Anyway, that's what we did.

Oh, and Jim ended up dealing with the situation that night all by himself because as soon as I heard what was happening, I pretended to be asleep.[20]

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[20] One more entry (inserted as a footnote as I don't have room to present it in the main body of the chapter): In physics, whenever you have static electric charge, you end up with a modified force field in the region around the charge called an *electric field*. Whenever you have an electric field, you HAVE to have an associated *electric potential field* (or *voltage* field) with it. I used to try to drive this *inseparability* home to my kids by singing the 1955 Sinatra song, "Love and Marriage." It went: *Love and marriage, love and marriage, goes together like a horse and carriage. That was told by mother, you can't have one without the other* . . . and such is the case with electric fields and electric potentials in static charge situations. My kids were always amused, which was the point. That's part of the fun of being a physics teacher, doing off-the-wall, wild and crazy things . . . .

_____x_____

[Jokes . . .]

I occasionally finish a lecture early, and instead of just letting the kids go, I demand a clean joke in return. If they can't come up with one, I help them out with what might be described as a physics teacher's version of a dad joke. There are a few I've used in the past.

1.) (Preamble: I start by telling the kids that then I was young, there were all sorts of movies in which a cowboy was seeking revenge for the death of his partner or some family member. In those movies, there was almost always the line, "I'm looking for the man who shot my . . . whoever.") So a dog walks into a bar and demands a drink. The bartender says, "We don't serve dogs." The dog gets belligerent whereupon the bartender shoots the dog in the foot. He goes ki-yi, ki-yi, ki-yi, and limps out. Six months later, the dog returns wearing a cowboy hat and sporting two six-guns, and says to the bartender, "I'm looking for the man who shot my paw." (where paw and pa sound the same when verbalized . . . funny, eh?).

2.) (Preamble: I start by telling the kids this isn't really a joke as much as it is something I read in the paper.) I begin by questioning, "Do any of you read the paper? I ask because I was wondering if you saw the story about the guy who *ran over himself*? No? Well, it happened last Friday. After school, a Poly student was walking home, and as he passed a guy standing on the corner of California Ave and Lake Ave, the guy said, *I'll give you a dollar if you will go across the street to the convenience store and buy me a paper.* Knowing he wasn't supposed to be talking to strangers, the kid said *no* whereupon the guy *ran over himself*. (It usually takes a second for this one to click and the kids to realize they've been had.)

3.) (Preamble: I tell my students that when I was a kid, there were lots of WWII movies with dastardly Germans making threats like, "If you don't come clean, ve (sic) have vays (sic) of making you talk.") So the particularly mean commandant of a German prison-of-war camp had a grandfather clock that went tick-tock, tick-tock. He would put the clock out on his porch in the POW camp, make the prisoners stand in formation at attention in front of the porch, and have them say "tick-tock, tick-tock" as they cocked their heads to the right, then the left, then the right in rhythm. He would make them do this for hours. One day the prisoners rebelled. As they were doing this head cocking action, they would say "tick" when on the left, but then say nothing when the head was on the right. In other

words, they would say "tick," then nothing, then "tick," etc. This infuriated the commandant, who pulled the ranking officers into his office and said in his very German accent, "I am not amused by your attempt to spoil my fun, and I want you to know, ve have vays of making you . . . tock" (the joke being that the word *tock* and *talk* sound the same when verbalized).

(Preamble: I warn the kids that this may seem a bit obscure.) So a guy is given the opportunity to make $1,000,000 in a competition. All he has to do is stack 1000 bricks into a perfect pyramid. He has two days to do this. At the end of the second day, he has completed the task. Unfortunately, just as he sees the judge's car coming down the hill, he realizes there is one brick he has missed. Not knowing what to do with it, he throws it up into the air as hard as he can . . .

That's the joke. The kids don't understand, so I tell them the joke isn't for everyone, and if they didn't get it, not to worry. Class would end with the kids clambering for an explanation. I'd say, "It wasn't a very good joke. Just forget it." This, of course, they wouldn't do.

Several days later, usually after the weekend, I'd say on a conversational way, "I had a really interesting experience on Saturday. A friend of mine, who is a pilot, bought a DC-3, a two engine, propeller driven airliner that has the odd characteristic of having windows that can be opened next to the front seats. The maiden flight was last weekend, and my friend invited quite an array of people to come along. The standout was an old, cigar chomping loudmouth and his ditzy, airhead of a trophy wife. She brought her small dog. It barked constantly. So we get on board and the plane takes off, and the oaf is demanding and being obnoxious to the stewardess, and the wife is continuously screeching at the guy, and the dog is barking. In other words, they are generally causing havoc. The poor stewardess did her best, but when the oaf lit up a cigar, it was too much. The stewardess confronted him, told him off, yanked the cigar out of his mouth, opened the window, and threw it out. The wife chimed right in with the stewardess, loudly giving the guy hell. The stewardess had enough of her and her dog, also, so turns on her, said she thought she (the woman) was a harpy, then grabs the barking dog and said, "As for you . . ." whereupon she opened the window again and throws the dog out. Everyone rushes to that side of the plane to look out and see what happened to the dog. What we saw was the dog, bracing against the wind on the wing, *with a brick in its mouth*.

Some of the kids don't get it right away, but when they do, they have to admit that this was a real groaner. It is tricky to pull off, though, as you have to accept looking like a dooffus at the end of the first day. Still, it's worth it when the payoff comes.

Chapter 39

Lab Cover Artwork, Iconoclasm and the Wabbit

There are several threads that have to be covered in talking about the lab cover artwork you will be running into in the next four or five chapters. I will segregate the topics for ease of reading.

_____x_____

[Lab-cover art in general . . .]

The first year I taught at Poly, I created and wrote up all new labs. It wasn't as though I had gobs of time to kill. In fact, I hardly slept that first year. I did it because the school had a very restricted selection of equipment, most of which was ancient when it was donated to Poly by Caltech years earlier, and I needed to tailor my labs to the equipment available.

The style of lab at the time was what was called "cookbook." The students would set up a scenario and take data that reflected what actually happened. In the write-up, they would model the situation using the theory they'd seen developed in class and come up with a theoretical determination of what *should* have happened. A comparison would then be made between the two.

In labs like this, the hope is always that the experimental and theoretical outcome will, to a good approximation, be the same thereby reinforcing the notion that the theory really does do a good job of modeling the real world.

A lot of the math on the theoretical side, especially in the AP class, was pretty gnarly. (As an example, to the right is the derivation of the moment of inertia I of a cylinder of radius R about its central axis—it starts with the derivation of

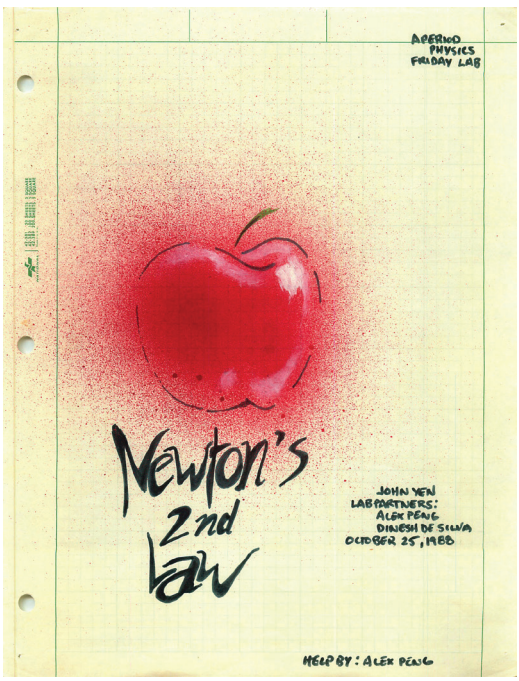
$$\begin{aligned} dm &= \left(\frac{\text{mass}}{\text{volume}}\right)(\text{differential volume}) \\ &= \left(\frac{M}{\pi R^2 t}\right)\quad (2\pi r\ t\ dr) \\ &= \left(\frac{M}{R^2}\right)\quad (2\ r\ dr) \\ &= \left(\frac{2M}{R^2}\right)\quad (r\ dr) \end{aligned}$$

$$\begin{aligned} I &= \int r^2 dm \\ &= \int_{r=0}^{R} r^2 \left[\frac{2M}{R^2}\right] r\ dr \\ &= \frac{2M}{R^2}\int_{r=0}^{R} r^3\ dr \\ &= \frac{2M}{R^2}\left(\frac{r^4}{4}\right)\Bigg|_{r=0}^{R} \\ &= \frac{M}{2R^2}\left(R^4 - 0\right) \\ &= \frac{1}{2}MR^2 \end{aligned}$$

the differential mass *dm* in a differentially thin, cylindrical shell—how's that for nasty?).

With that as a backdrop, you can understand my surprise that first year when I found students who, after having experienced hours and hours of brain-beating agony to get a write-up to work out, chose to take a few extra hours to do something clever or artsy on the cover sheet of their lab report.

These efforts were worth nothing in the way of points. They were, I think, more therapy than anything else as they would often highlight some awful thing being done to a mustached man wearing glasses (i.e., the creator of the lab . . . which is to say, *me*). It was, in other words, often very seemingly disrespectful and, given what I've already said about my attitude toward "rebellious students," very fun.



By the second year, my wee small brain finally realized I was passing up some damn good artwork, not to mention a whole lot of other clever thinking that was going into and onto the covers, so I started collecting and posting them on a bulletin board for all to see (a rather bad photo of "the wall" is shown above to the left).

Over the years, I've had some amazing stuff cross my desk. One student airbrush a cover (see the photo to the left—John Yen, its creator, is currently the head of the Tech Dept at Poly).

One student batiked a cover.

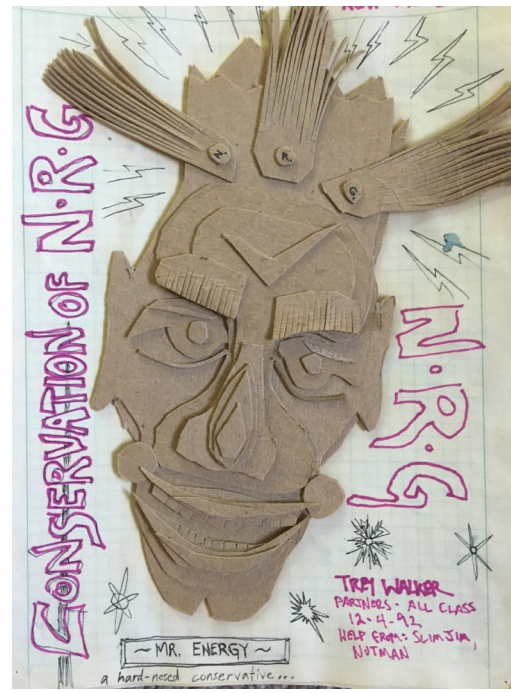
One kid glued pieces of cut out cardboard, one on top of the other, until he had a half-inch high, three-dimensional picture *of his face* (cover to the right—one student who saw this on my Web site years later observed that this kid had WAY too much time on his hands).

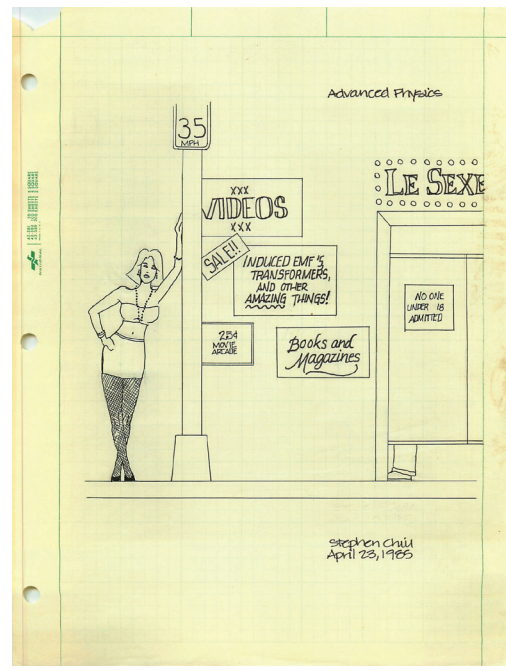
Two students got together one year and took on the personas of the fictitious characters Binky and Coco. Every week, Binky would do some awful, lab-related thing to Coco on Binky's cover, and Coco would reciprocate on his cover. I'd put the two covers up side-by-side so students could decide each week who got the best of whom.

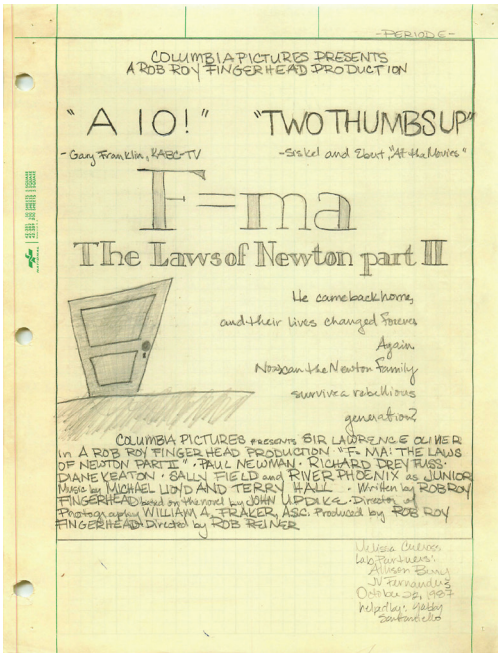
I had students create cartoons ("The Adventures of Physics Man," for one). There was the surfer who liked to carve surfboard wax into sculpted heads he'd stick on his covers. For the *Induced EMF's and Other Amazing Things* lab, a student created a cover of *amazing things* (see to right). One year, for the Collisions Lab, I had a student model a catastrophic collision by breaking an egg in a sealed baggie, then gluing the bag onto his cover.

Several kids over the years made covers that looked like movie reviews (see top of next page).

I had amazingly good artist over the years do terrific likeness-







es of me or themselves or some prominent person in the news (on a *freefall* lab, a Russian émigré in my class drew a wonderful picture of Gorbachev dropping Sakarov into a hundred-years of exile). There was one very scholarly kid who wanted to be a priest (he actually went on to Notre Dame following that path). He wrote an entire essay on his cover, complete with quotes from Thomas Aquinas, railing against the evils of *physics labs*. The number 666 popped up a third of the way into the diatribe, and two-thirds of the way down he lapsed into Latin. It was hilarious.

There was the kid, who on the last lab of the year, recreated that famous celebration scene in Time Square with a sailor passionately kissing a woman at the end of WWII (cover to left).

I had one kid who collected "Fletcherisms" over the year and presented them to the world via lab cover the last month of school. One kid even fabricated what appeared to be official letterhead from the National Physics Olympiad team saying that I should excuse his miserable lab performance because he had been training with the team and hadn't had time to do a good job on "this lab" (this was done on a new fangled computer).

Several kids over the years did plays-on-words using the electrical resistance unit (ohms) and its Greek-letter symbol omega (Ω) (two terrific examples of covers

like that are to the right).

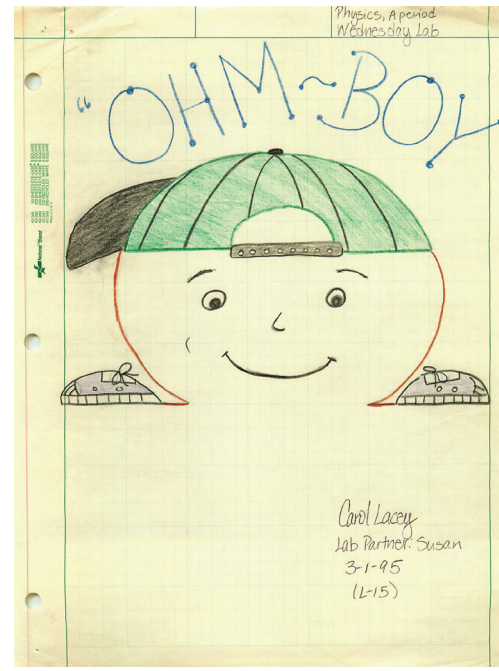
One kid was taking a nude drawing class at Pasadena City College and regularly came up with spectacular nude art. He was also the one who did the kick-ass rendering of an aerial view looking into a toilet being flushed with a giant turd swirling down the drain (I know this sounds gross, but it was funny because he made it very clear on the cover that this all symbolized what was happening to his grade in my class and his subsequent chances of getting into a good college as a consequence of that grade).

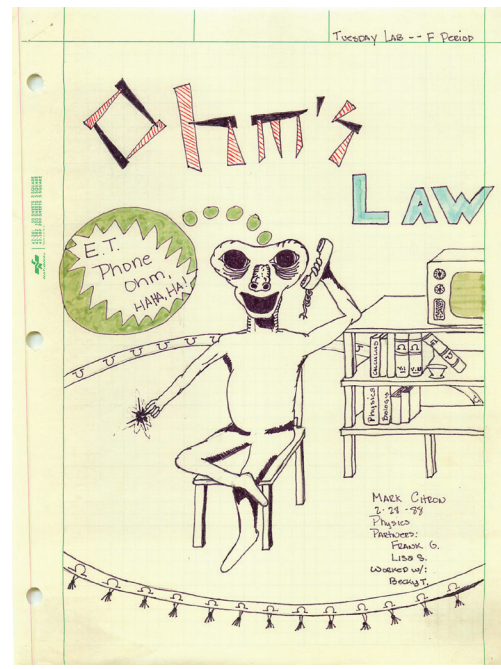
I had great plays on words (on a *Conservation of Energy* lab, there were two stick figures with one saying $E=mc^2$ and the title stating "*Conversation of Energy*").

I had four kids who would get together and draw their respective lab covers as part of a panorama.

In summary, I had tons of really good artwork coupled with very clever wordplay.

That said . . . I also had a whole lot of sexually driven stuff in the form of drawings, cut-outs from magazines and double-entendres. The big problem I had with the sexy stuff (scantily clad females were huge) was that they were always cleverly displayed in a way that had something cool to do with or say about the actual lab (you can imagine what the kids did with the "Rigid Bodies" lab). Being an *art*





for art's sake kind of guy, and given that I hated to play censor, and given that I loved *funny* and *clever*, I had real trouble convincing myself that I *shouldn't* put appropriately amusing but nevertheless sexually provocative stuff up on the board.

The *real* problem, I guess, was that nothing much shocked me (I had, if you will remember, been given the coveted *asshole of the month* award in my fraternity several times—I was fully versed in the art of being naughty), so I very rarely nixed anything. What's more, even the most proper and sheltered of my kids seemed to take glee in being scandalized by outrageous lab covers.

Susan Grether (the biology teacher you met earlier) was no help. Her sense of humor was more bawdy than mine. We did, though, have one teacher in the department who was kind of a prude, so when I was really unsure about something, I'd show it to her. If she didn't have a stroke, I'd put it up.

In short, for my first twenty or so Poly years, the weekly posting of lab covers witnessed a rollicking free-for-all of talent and iconoclastic humor.

Then came the PC movement.

At some point in my consciousness-raising along the "political correctness" lines, I came to realize that it was possible that there might be girls in the audience who really didn't like walking into class and seeing big busted babes staring down at them from the bulletin board, even if the covers were clever and funny. What's more, it was quite possible that *if* that was the case with some of the girls, they probably weren't going to say anything to me about it.

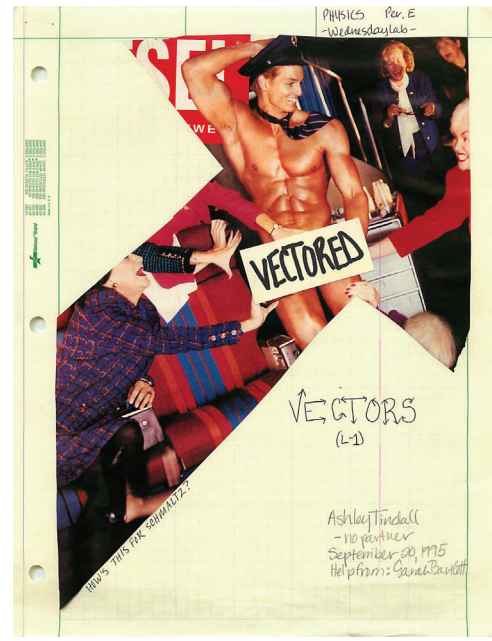
It was, in other words, up to me to provide a "safe environment" for all of my students, and I was doing a potentially lousy job of it for those girls. I therefore decided, without any nudging from the outside, that things needed to change. But how to do it?

My first attempt was to talk to my classes and, specifically, to the boys in my classes, and try to cajole them into giving up on their risqué ways. My spiel was simple: "Guys," I said, "I know you like seeing sexy females on the wall every week (there was a low rumble of approval along with a few *Amen Brother*s)." I continued, "But let's face it, if it's OK for you to put up scantily clad gals on your covers, it has to be OK for the girls to put scantily clad MEN on *their* covers. You don't want to come in every day and see beefcake on the wall, do you? So let's stop with the sexy lab covers."

Dumb me. My little talk did absolutely nothing to dissuade the guys

about sexy-girl covers. What it did instead was to motivate the girls. That next week, a bunch of them went to the *Alexandria 2* bookstore on Lake Street in Pasadena and found a copy of *The Kama Sutra*, an ancient Sanskrit treatise that was the first *101 positions* sex manual. You will see that cover later.

Another student and friends went to an adult bookstore on the corner of Fair Oaks and Colorado Blvd in Pasadena (this was long before the stylish "old town" was established in that area) and bought a bunch of male nudie magazines. They cut out pictures of nude guys, fitted them with fig leaf-like coverings and pasted them onto their own lab covers (I know the guys were fully nude to start with because unbeknownst to me, Susan Grether took a razor blade, cut the tape holding the figleaves in place and looked underneath to see what was there—sure enough, according to her, the guys were anatomically correct). One of those covers is to the right.



I had clearly failed miserably. Realizing this, I came up with what came to be known as the *family values lab cover policy*. No more sexy pictures. No more sexy dialogue. Covers had to be such that if a parent or potential school donor saw them, they would look at them without swooning and passing out.[1]

Unfortunately, while I was delivering that edict, in an attempt to seem less ogre-like than I actually was, I kiddingly said that if one really felt the urge to create a sexy cover, "You can always do one, give it to me in a

[1] A moderately amusing and unexpected twist came in all of this drama when a member of the Paw Print, the school newspaper, who was taking my class at the time, wrote an article about the dust-up. It would have been a good thing if the student hadn't inadvertently suggested in the article that "Mr. Fletcher has, for years, encouraged his students to do *pornographic* lab covers." The kid meant no harm and people knew me well enough to know that that wasn't the case, but the paper went out to alums all across the country, so it added a bit of unexpected spice to the proceedings. It is also very fortunate that all of this happened during the period of Poly's history I refer to as *the wild west* when the school was not so worried about its brand (not that I'm complaining about how it is now . . . just saying).

brown paper bag, and I'll let your friends see it upon request." I was kidding, of course, but the next week I had three brown paper bags show up, so I had to put a stop to that option, also.

The kids were generally pretty good about the pronouncement, mostly, except about two weeks after the final policy went into effect, one of my better artists drew a superb likeness of himself hanging on a cross saying, "Oh, Fletch, thou hast forsaken me."

Shit! He wasn't breaking the rules—it wasn't sexy, it just managed to insult a quarter of the earth's population (or whatever percentage the Christian faith sports). Needless to say, I didn't put that one up but the imp in me was tempted.

_____x_____

[Irreverence . . .]

This is going to take a little explaining.

Class trips is an *outdoor education* thing that Poly students get to experience every year. The frosh, sophomores' and juniors' trips happen within the first five or six weeks of school; the seniors take theirs at the end of the senior year. We used to have whole classes go on one trip (the entire junior class, all 80 of them, used to spend five days canoeing down the Green River in Utah), but there came a time when it became evident that huge groups of students in the wilderness was not good for the wilderness, so we switched to having multiple options with the kids *choosing* which trip they would join. Over the years, the possibilities have been: a rock climbing trip in Joshua Tree; a backpacking and canyoneering trip in Escalante State Park in Utah; a backpacking trip in Zion National Park, Utah; a High Sierra backpacking trip in Yosemite; a High Sierra backpacking trip to summit Mt Whitney; learning to Fly Fish in the Mammoth Lakes area; a couple of service oriented coastal eco trips (one to Santa Barbara, one to Big Sur); a white-water rafting trip for the juniors down the Klamath River in Northern California; a "sustainable living" experience at Jameson Ranch in the Southern Sierras; a hiking and sea kayaking trip based in the Channel Islands off the California coast; an Environmental Leadership camp on Catalina Island; a mountain biking trip in Sedona, Arizona or the Mammoth Mountain area; and a surfing trip for beginners in Ventura.

Sometime in the early 2000's, in the spirit of class trips, I and a *Board of Trustee* member (her name escapes me—my apologies) organized a class trip for eighteen frosh on a sailing vessel. We got the *Newport Sea*

Scouts to rent us their hundred-year-old, 110-foot *Tall Ship* (see photo), complete with crew, for a five-day sailing adventure to and around Catalina Island (Catalina is, if you are familiar with the song, famously 26 miles offshore).[2]

Although everyone on the crew had *First Mate* status, the fellow who took over as cook was special. He looked very much like a pirate, complete with black patch over one eye, and throughout the trip he kept the kids absolutely enthralled with tall tales about the sea.

For instance, he told them about sea shanties—songs sung by working seamen on sixteenth, seventeenth and eighteenth-century British fighting ships. (Probably the best known of these is, "What do you do with a drunken sailor?" There was another, though, that refers to "a drop of Nelson's blood.")

According to the guy, British Naval ships during that period were harshly brutal. ANY lapse in discipline was met with lashes; there was absolutely no broaching of decorum. The one and only area where sailors could express their frustrations was in the shanties. They could sing about anything they wished, no matter how disrespectful.

For instance, Admiral Nelson died at the Battle of Trafalgar in 1805. He was secretly stored in one of his ships huge casks of grog (alcohol) while being sailed back to England for burial. Not knowing this, some of the crew syphoned grog from some of the casks during the trip. When his body arrived in England and his cask was removed, the container was nearly empty of liquid . . . hence the shanty that includes the phrase, "Let's

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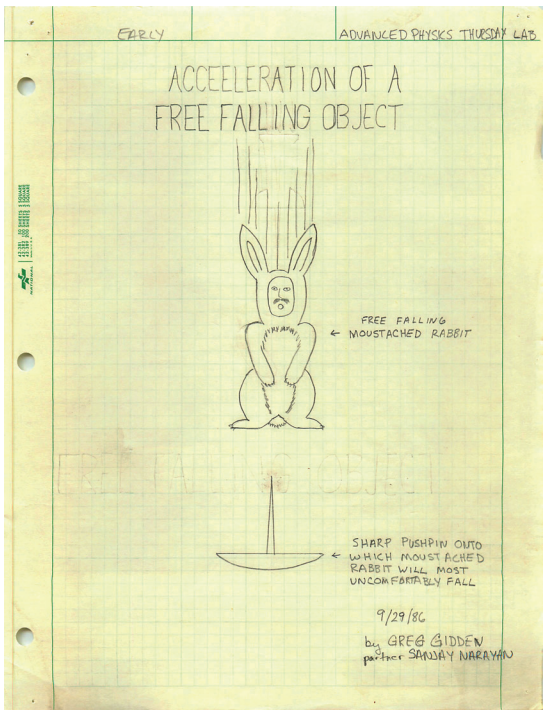
[2] The ship was gorgeous but very much a 1900's relic. The head (bathroom, for you land lubbers) was a marvel. To flush the toilet, once you were done doing your business, you used a small pail at the end of a long rope to scoop seawater up from overboard, then you dumped it down the toilet. That would execute the flush (that, by the way, will even work with the toilet in your house, though seawater is obviously not required for things to work).

Also, as an added bit of history, I didn't go the second year we ran the trip, and it was a disaster. The cook didn't show and the crew didn't do a very good job. As a consequence, we stopped doing the trip until we found another organization (the Los Angeles Maritime Institute) that had two tall ships and were better organized. (Additional note: It is 2024 and I am semi-retired. I decided to go on a class trip this year, anyway . . . *that* class trip. The mates were excellent and in talking to one of them, I mentioned that first trip. According to him, our original ship is no more—it sank at dock years earlier. So sad.)

have a drink of Nelson's blood." How's that for a fun story.

Why am I talking about this? I look at lab covers the way English sea captains looked at sea shanties. If someone is feeling particularly abused due to taking three or four hours to figure out a particularly ugly lab problem, I'm happy to let them have at me on their lab cover. In fact, if the cover is clever, I kind of relish the amusement.



That is why I was always happy to put up covers in which a mustached man or an innocent wabbit or both (see cover to left) is being treated badly. It looks terribly disrespectful, but in my mind, it's all in good fun (and it's therapeutic) . . . which brings us to *the wabbit*.

_____x_____

[The wabbit . . .]

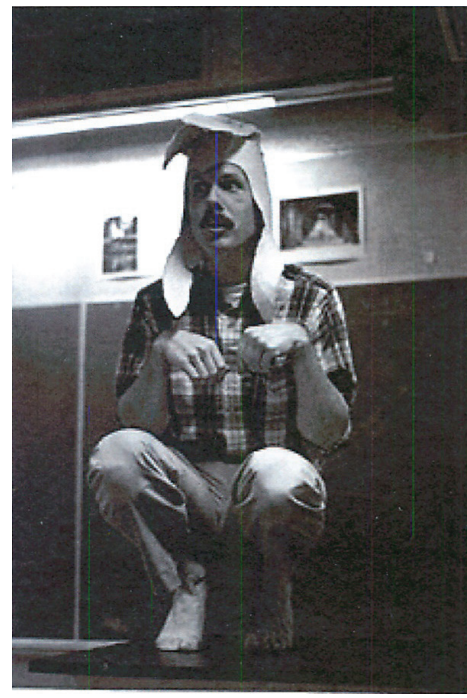
Every year at the conclusion of the kinematics and projectile motion chapter, I don rabbit ears, stuffed a huge cotton-ball into my belt over my fanny and, with a carrot in my hand, go hopping out into my classroom from my backroom (nicknamed *Geppetto's workshop* by the students). Bounding up onto the classroom's demonstration table, I say in a very soft, almost apologetically bashful voice, "Hello. I am a wabbit" (at this point I usually pause to nibble on the carrot). Continuing on, I say, "I have been asked by Mr. Fletcher to come and talk to you about something that wabbits are known to do *prolifically*."

I pause again, look around the room for someone who is giggling, then say to them, "No, no, not *that*! Does everything have to be about sex with you people?"

The kids who haven't been laughing to this point have now pretty much lost it. I continue, "No, what wabbits are known to do is this . . . " And with that, I execute a single, relatively energetic hop across the table.

"You see," I say, "What Mr. Fletcher wants me to remind you is that hopping is really just this (I jump straight up) and this (I scurry across the tabletop), happening at once. In other words, two-dimensional projectile motion is really just vertical motion (my finger goes straight up vertically into the air, then back down) and horizontal motion (my finger moves in the horizontal), happening independent of one another but at the same time" (more nibbling). Then, "That's really all I have to say. Thank you for having me."

With that, I bound down off the table and hop out of the room.



The first year I did this (it was 41 years ago, again, as of this writing), a girl in the first row said as I came hippering in, "I don't believe he's doing this." It has been the same ever since (interesting note: what really seems to impress most students is my ability to hop from floor level onto a three-foot high tabletop).

Physics teachers are expected to be a bit crazy, or so it would seem, but it's all theater and those of us who do it, love it. Anyway, that is the genesis of *the wabbit*. You are likely to see a lot of wabbits in the assortment of covers to come. Some will be lovingly rendered. Some will have horrible things done to them. It's all to the good.

. . . And one last thing before I leave this: I've heard alums I had twenty-five years ago who, upon recounting to friends the wabbit story, maintained adamantly that I was wearing a full blown rabbit suit when I came hopping out. That's the way they remembered it. Isn't it funny how the brain works?[3]

_____x_____

[3] Pictures of me as *the wabbit* have popped up in several yearbooks over the years. The shot shown above is actually from my personal website, though it, too, was originally taken by a student for, you guess it, the Yearbook.

[So now what?]

What you are about to experience are four chapters of lab cover artwork fun. I hope you enjoy it as much as I have over the years.

Note 1: If I had a fully representative set of covers for all my students over all the years, I'd have restricted the number of covers coming from a particular student to one or two. That way, as many students would be represented as possible. The downside of this is that not all students are created equally as far as cleverness and artistic ability goes. I want broad representation, but what I really want to show is fun stuff. As I don't have a complete set of covers anyway, I decided to go primarily for fun over broad representation. The bottom line is that if you notice that someone has three or four covers in the mix, don't hate. I'm trying to be fair, but my real hope is to amuse and entertain.[4]

Also, if you know you personally came up with some good covers and you don't find them here, I am really sorry. I did the best I could with what I could find.

Note 2: I noticed that in the hard copy of the book, some of the commentary written on some of the lab covers is hard to read, either because the student used a very light touch with their pencil or because the print was very small. If you find a cover you want to look at more closely, download the book in pdf form (where to do that is on the cover sheet of this book) and simply expand the file. All the info is there. It just might be hard to see on paper. :)

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[4] One other thing: Most of the lab cover photos in the book were originally generated by scanning the originals. Color generated for computer screens is produced when red, green and blue light is superimposed in an *additive* process (this process is called RGB). Due to the way color is produced in this approach, there is a wide spectrum of colors other than red, green and blue available with RGB.

Print is a whole other story. In that case, pigments are being laid on top of one another (four plates worth) in a *subtractive* process. This is called CMKY (cyan, magenta, black and yellow). Due to the way color is produced in CMKY, its color range is considerably more restricted than is the case with RGB.

InDesign, the program I used to generate the pdf that Ingram Sparks used to print the book, automatically converted all RGB colors to CMYK colors when that pdf was created. Consequently, the very pretty, bright blue color I started out with for the cover of Volume 1 (for instance) ended up being a gun-metal blue after the conversion (not awful, but a bit of a bummer, anyway). In short, I'm not sure how the lab cover colors are going to turn out. Hopefully they won't end up being too muted.

Chapter 40

Lab Covers—Part 1

Sometime around 2000, I entrusted the folks in the Alumni office at Poly with several boxes of lab covers. In fact, it was all the lab covers I had from 1979 to 1995 (around 3200 covers total). Having been created by Poly alums, I assumed the office would keep the covers safe.

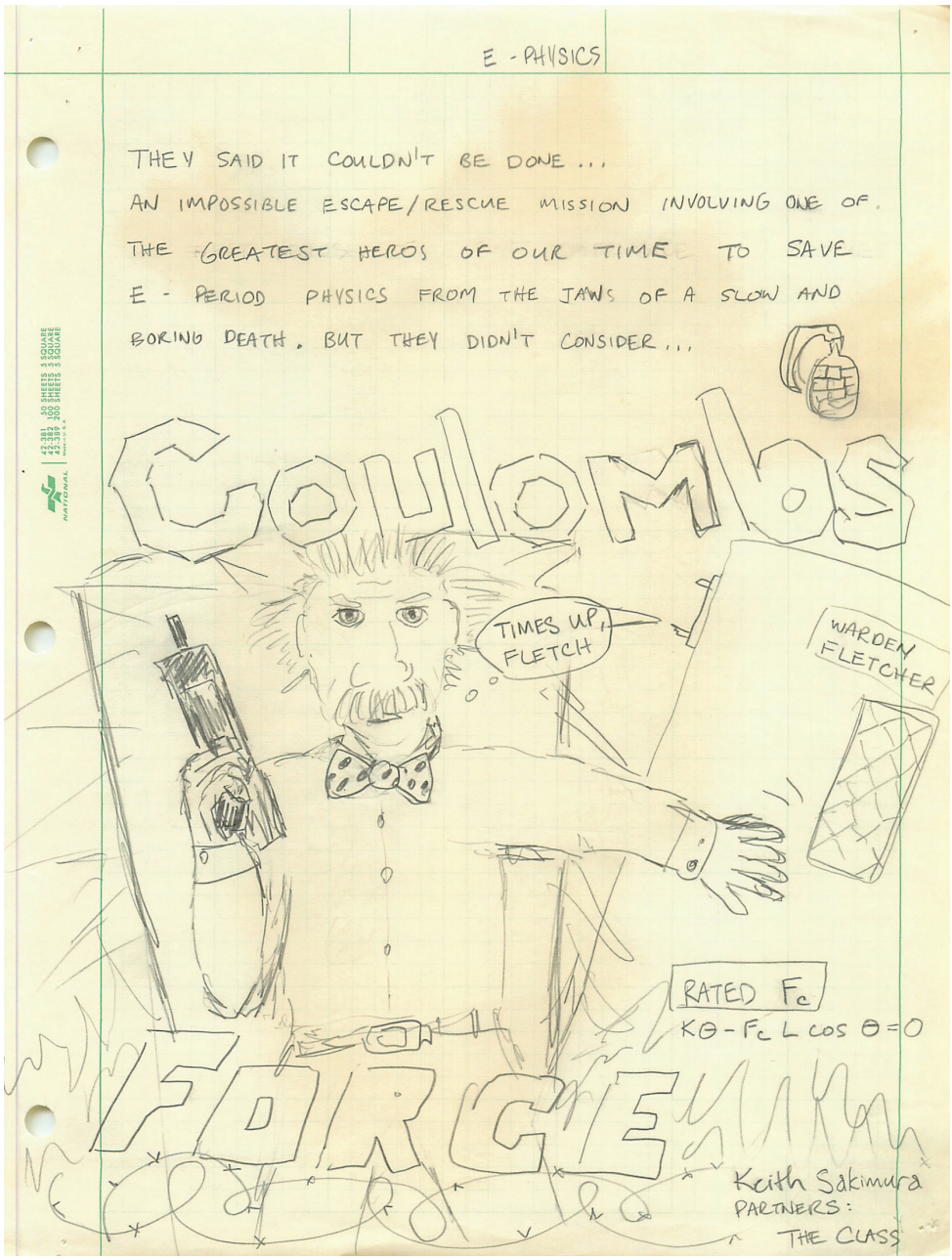
Unfortunately, some bright souls cleaned out the storage area that exists above the offices in the old Administration Building, and instead of seeing that the papers in the boxes were physics related, hence the need to return them to me, they threw everything out. When the school decided to tear down that building and build the new complex, I realized I needed to secure those boxes and went back to collect them. By that time, nobody seemed to know anything about them. I was not, as you can imagine, amused (when you see the quality of artwork in the pages to come, you will understand why the loss grieves). The consequence of all of this is that I now have only the original covers from students who attended my classes from 1995 till now. (I do have *slides* I made of many of those earlier covers, so all is not lost, but having the originals would have been better . . . and I should mention that Barbara Bishop, who has done a wonderful job with the archives over the last several years, now has those slides.)

What follows started out as a few dozen covers. It has expanded since then to four chapters. These are only a tiny fraction of the sometimes clever, sometimes provocative, sometimes titillating, sometime artistically brilliant material my students have created over the years. With a few exceptions, I won't be including commentary with the covers. If you want to know who did what, look on the cover. The student names are there. Anyway, enjoy. Lord knows, I have.

Advanced Physics

Stephen Chiu
November 20, 1984

Coulomb's Law lab

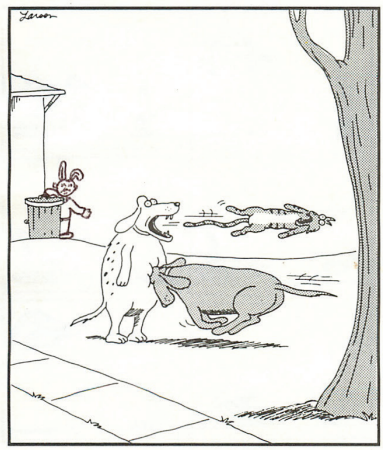


Collision and Impulse (notice the wabbit behind the trash can)

Late: Odays

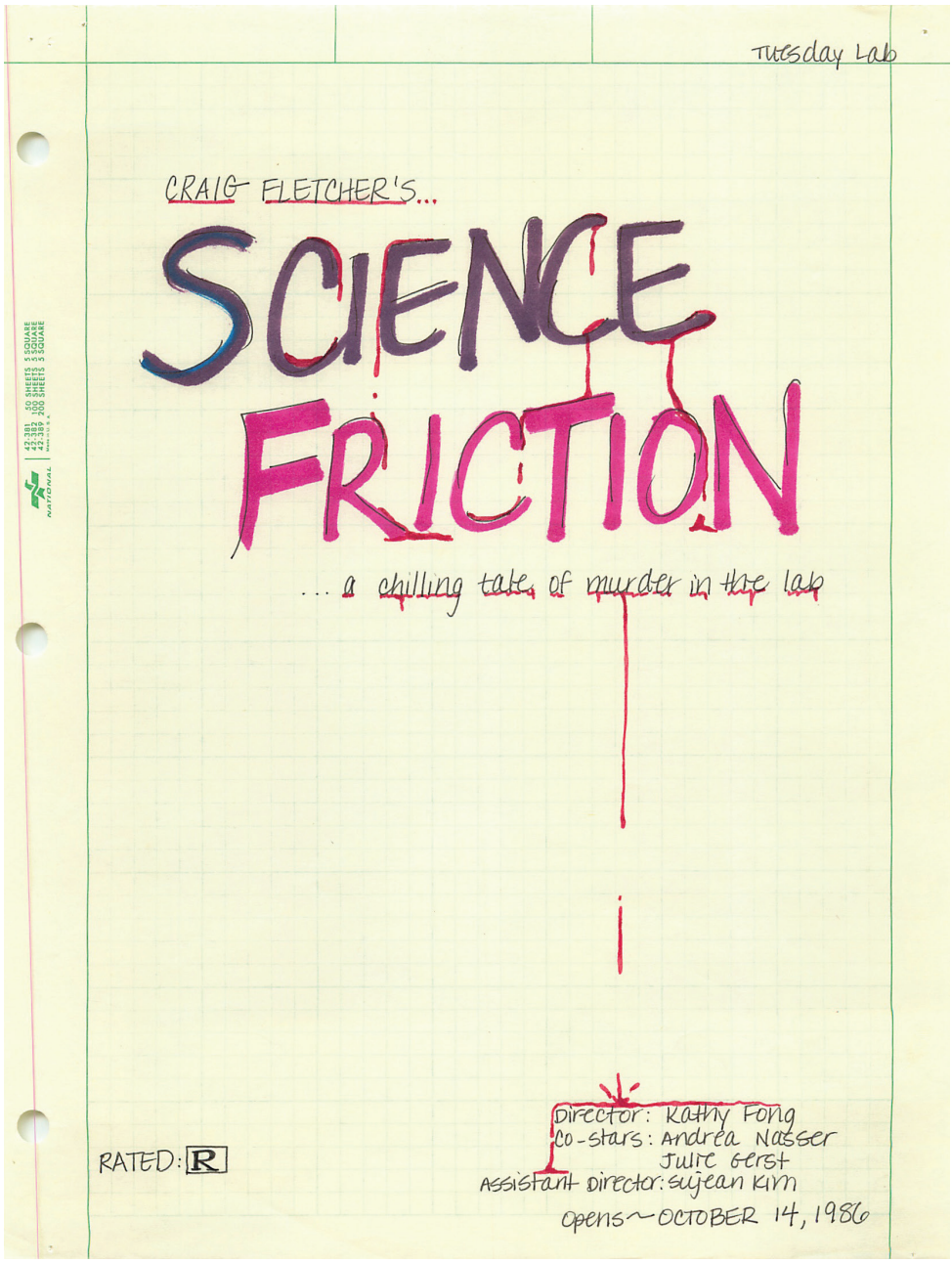
Advanced Physics
- Friday Lab
Period E

L-8
Collision and Impulse

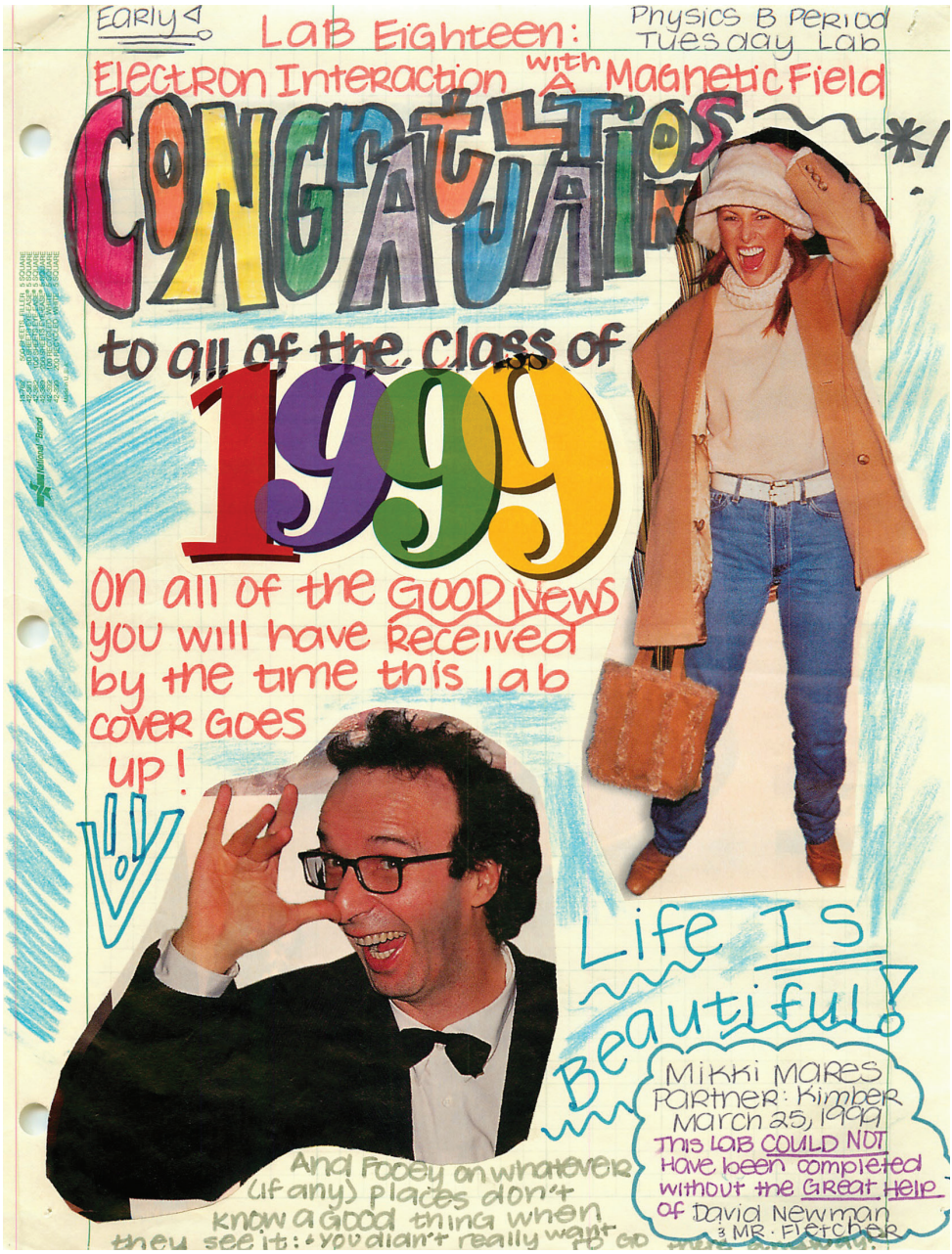


Fortunately for Sparky, Zeke knew the famous "Rex maneuver."

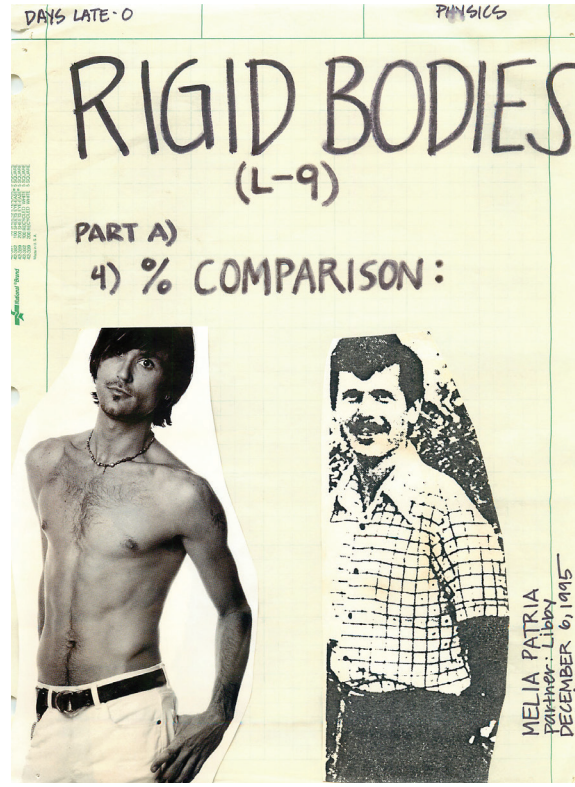
Ricky Thompson
Partners: Jason C.
Brendan T.
11/14/97
Help From: Jason C

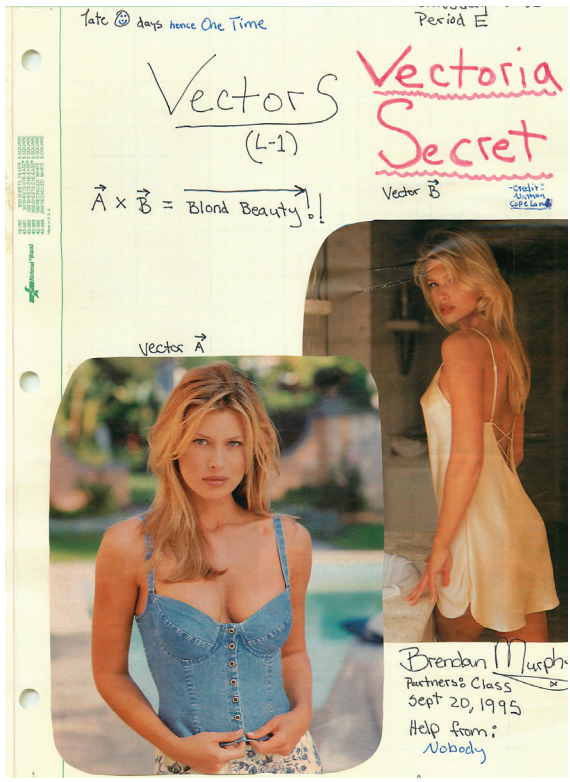

Tuesday Lab
CRAIG FLETCHER'S...
SCIENCE
FRICTION
... a chilling tale of murder in the lab
RATED: R
Director: Kathy Fong
Co-stars: Andrea Nasser
Julie Gerst
Assistant director: Sujean Kim
Opens ~ OCTOBER 14, 1986

Electron Interaction with a B-fld



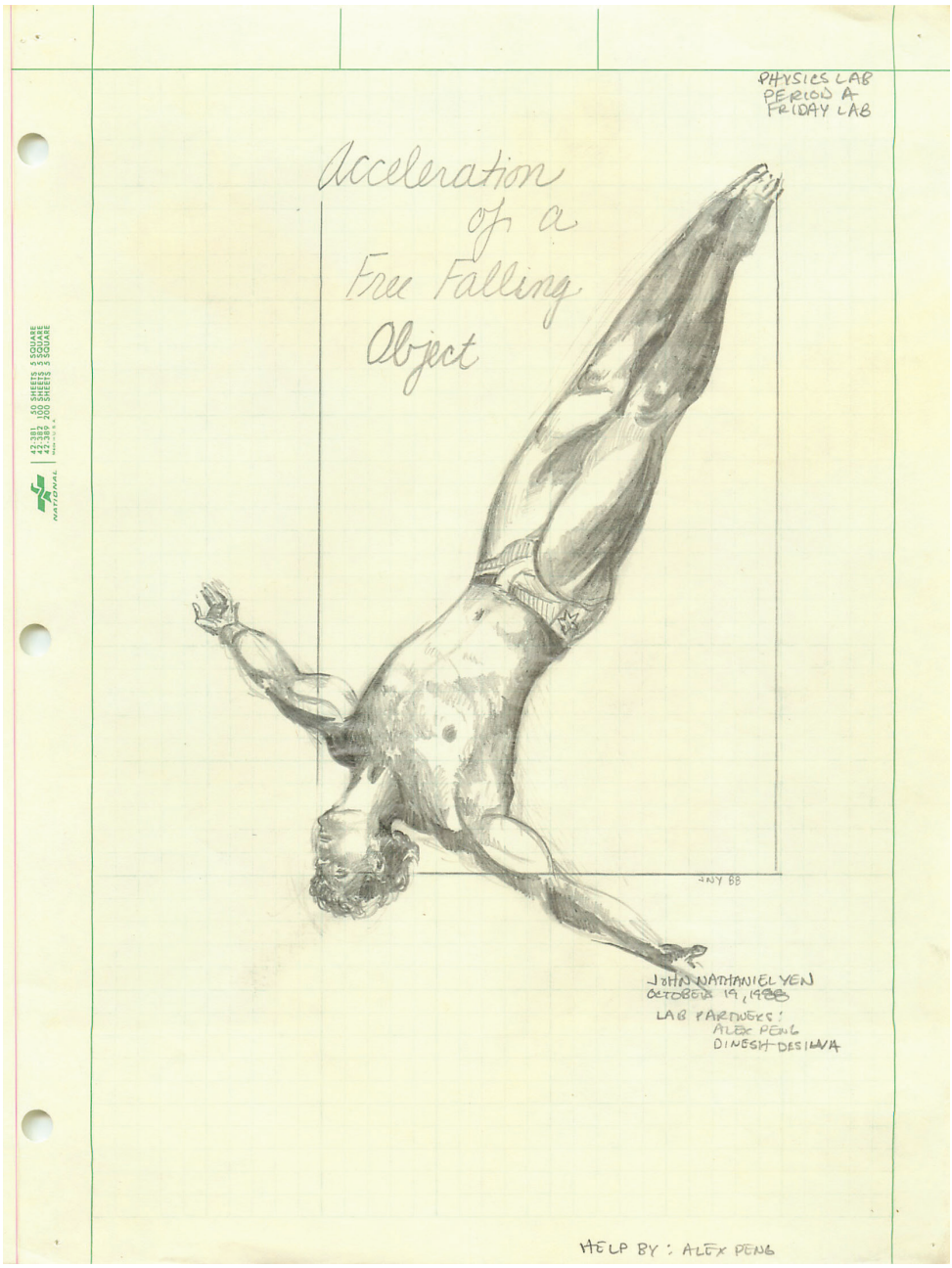
Rigid Bodies lab

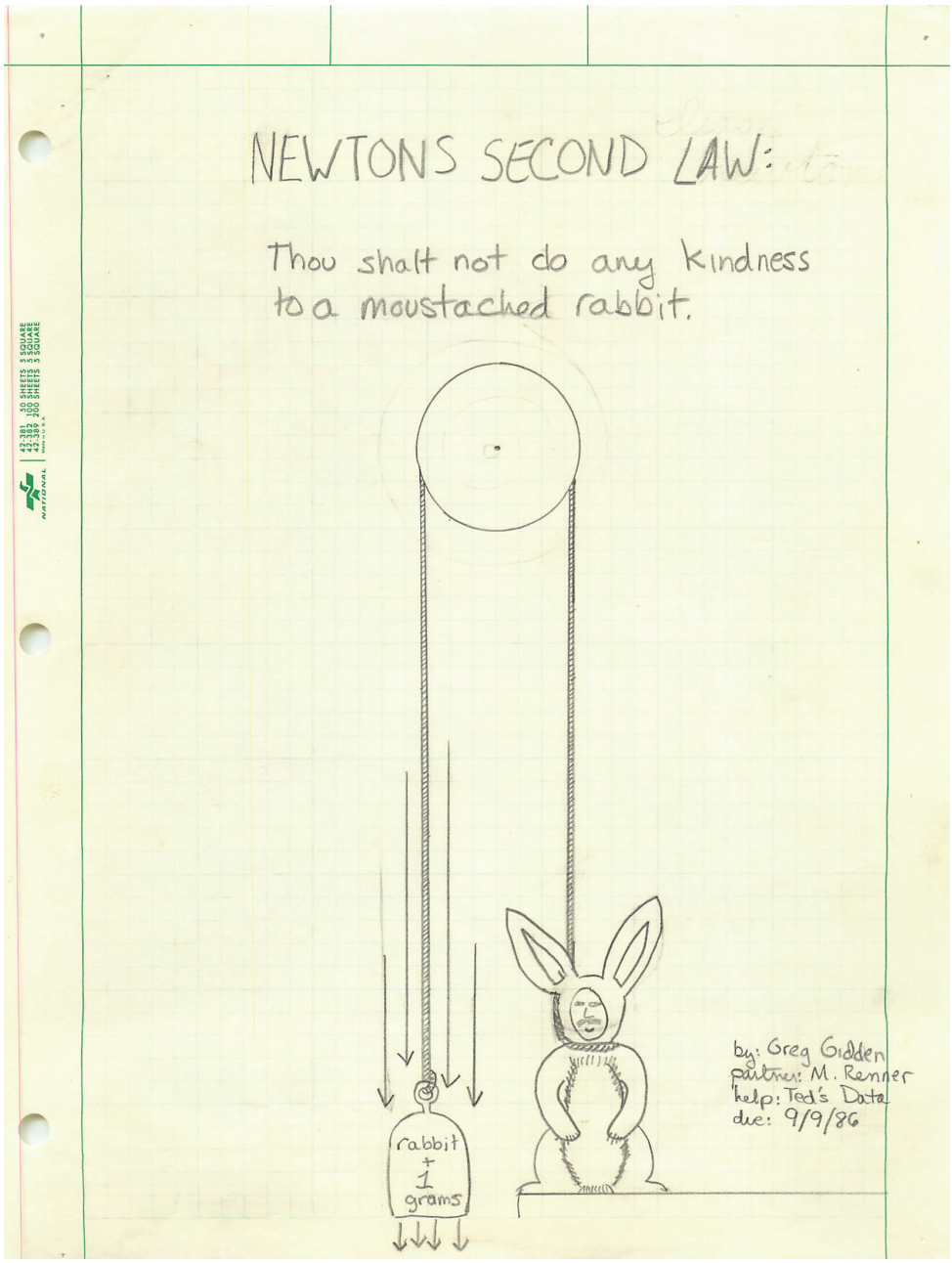




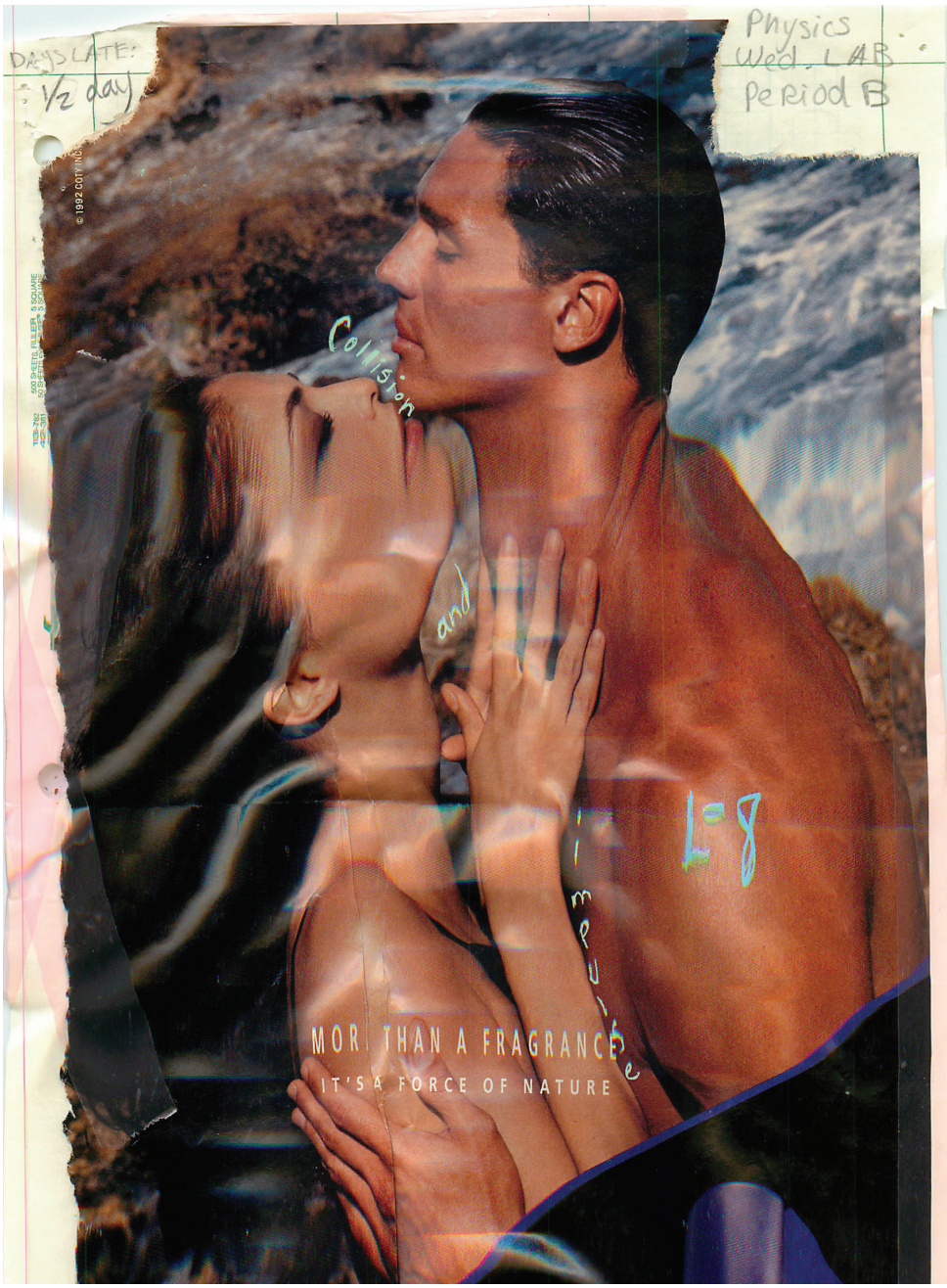
Vectors lab (clearly before the *family values* policy)

Freefall lab

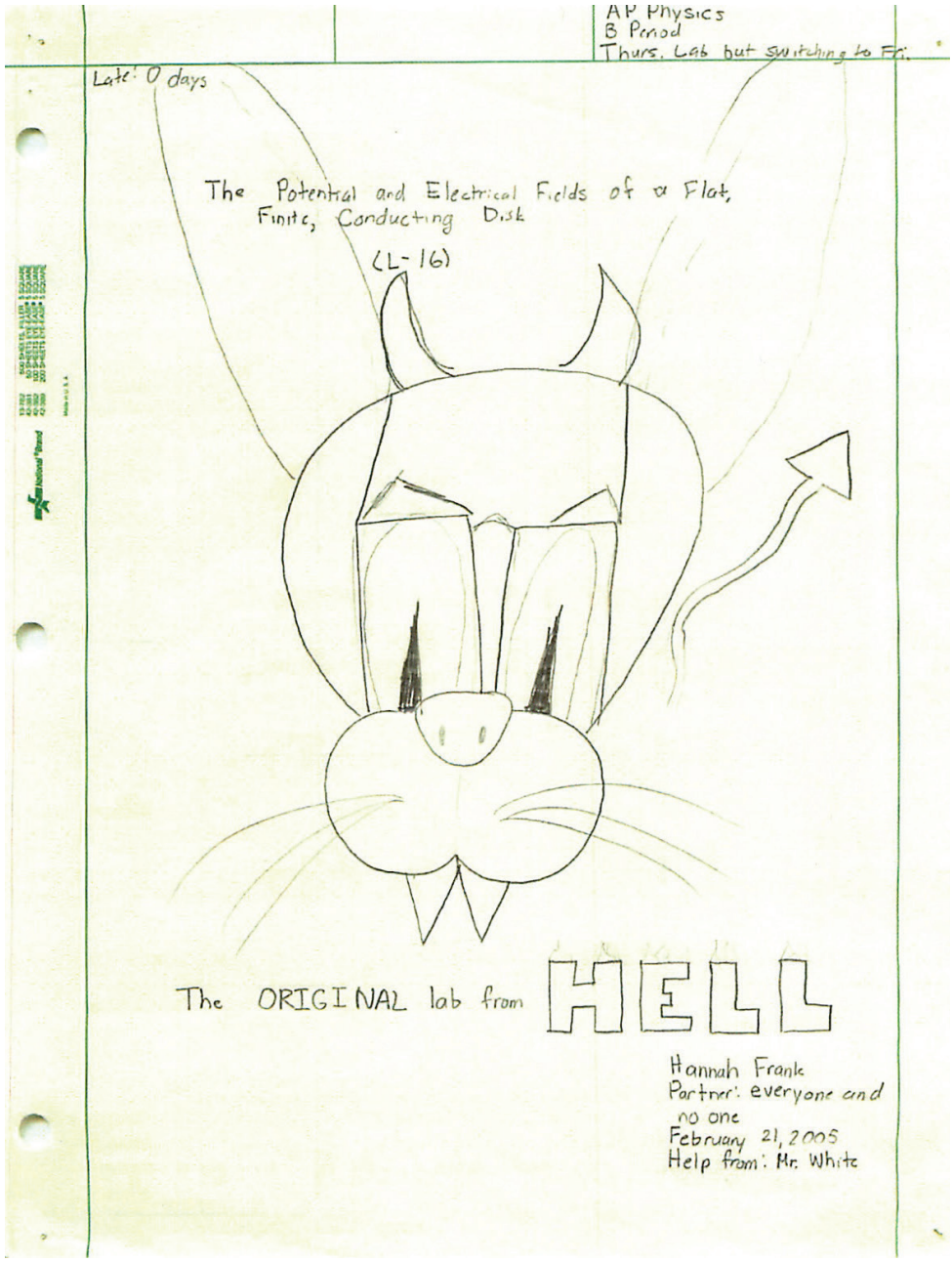



NEWTONS SECOND LAW:
Thou shalt not do any kindness to a moustached rabbit.
rabbit + 1 grams
by: Greg Gidden
partner: M. Renner
help: Ted's Data
due: 9/9/86

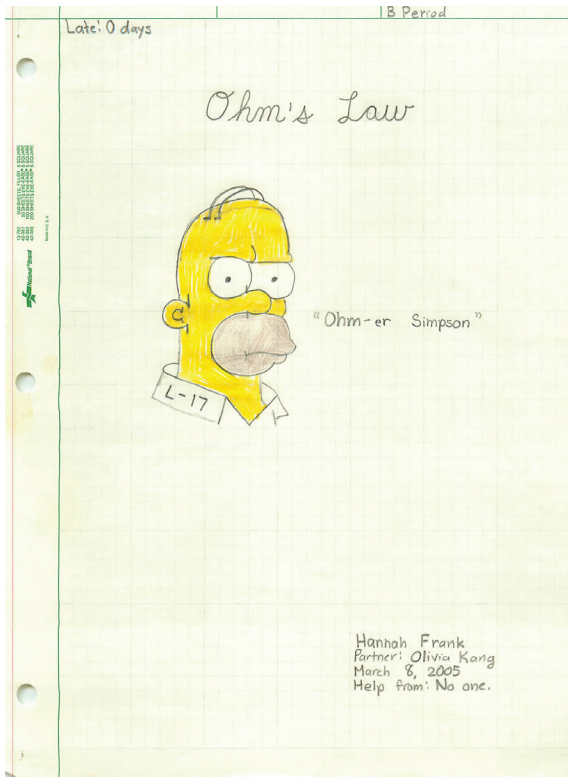
Impulse and Collision lab (before the *family values* policy)



Conservation of Energy lab (before the *family values* policy)


AP Physics
B Period
Thurs. Lab but switching to Fri.
Late: 0 days
The Potential and Electrical Fields of a Flat, Finite, Conducting Disk
(L-16)
The ORIGINAL lab from HELL
Hannah Frank
Partner: everyone and no one
February 21, 2005
Help from: Mr. White

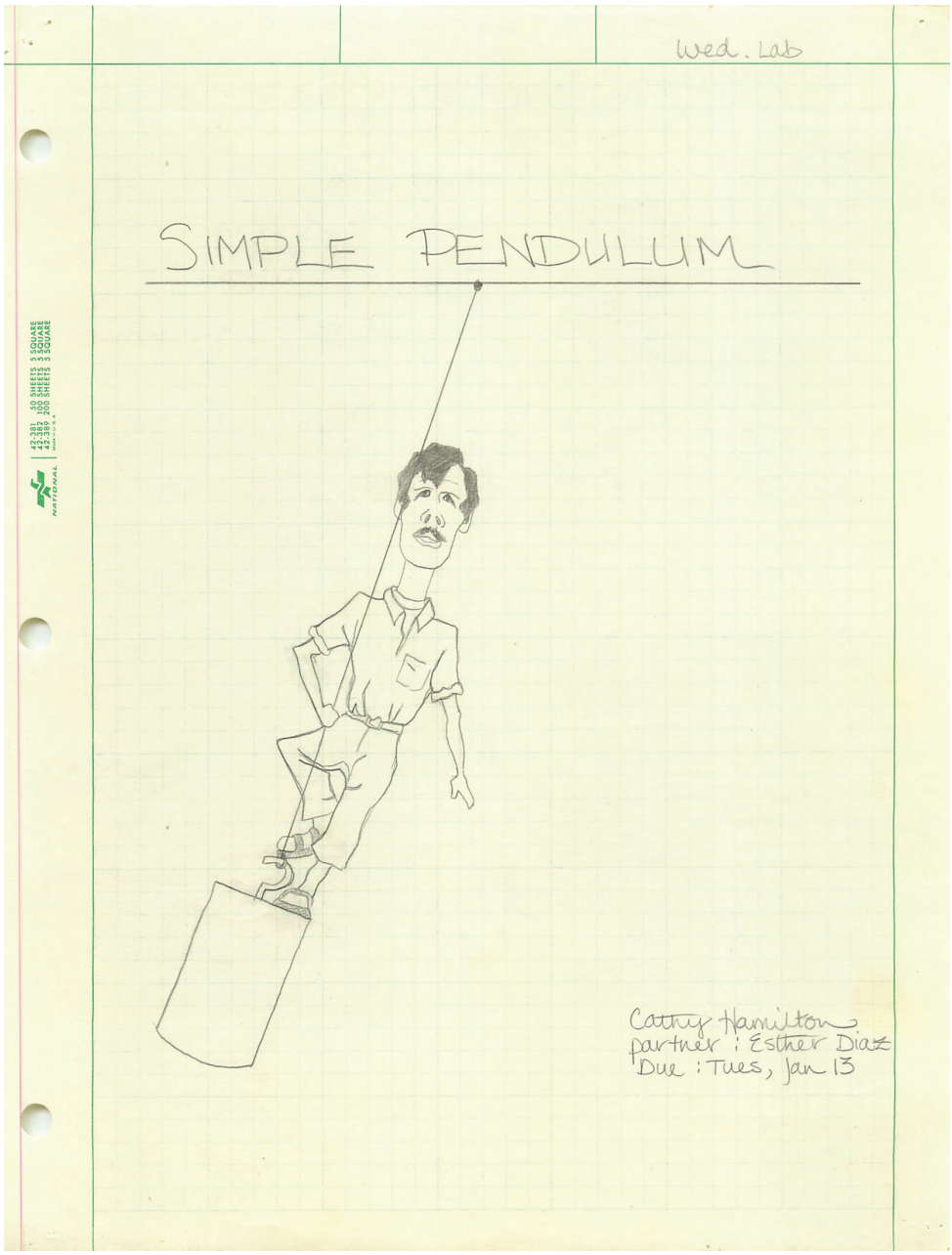
Vectors lab

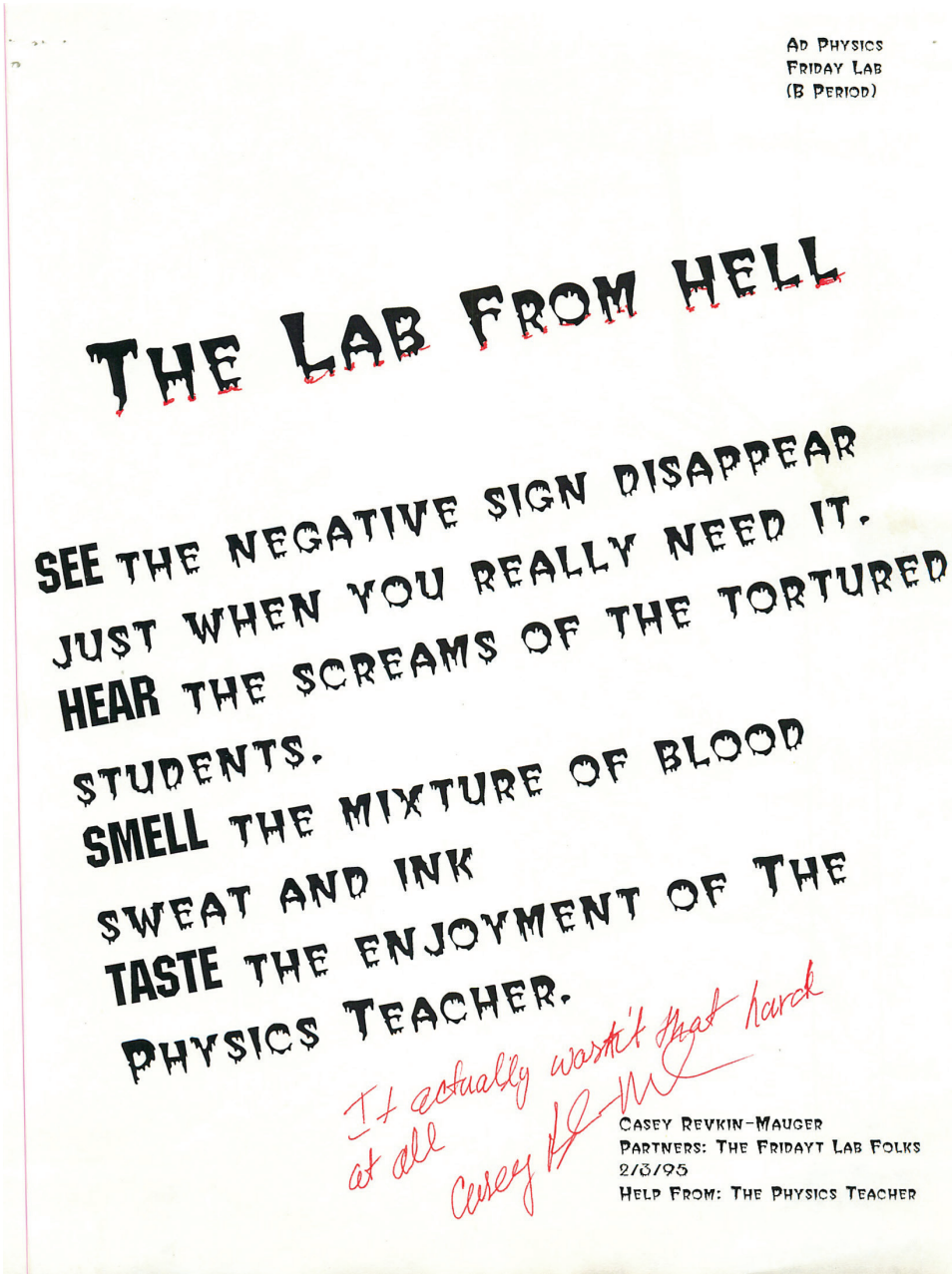


Ohm's Law lab

Newton's Second Law lab (and more wabbit abuse . . . with my blessing)

Simple Pendulum lab





AP PHYSICS
FRIDAY LAB
(B PERIOD)

THE LAB FROM HELL

SEE THE NEGATIVE SIGN DISAPPEAR
JUST WHEN YOU REALLY NEED IT.
HEAR THE SCREAMS OF THE TORTURED
STUDENTS.
SMELL THE MIXTURE OF BLOOD
SWEAT AND INK
TASTE THE ENJOYMENT OF THE
PHYSICS TEACHER.

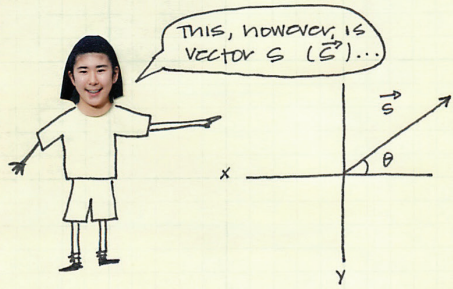
It actually wasn't that hard at all
Casey

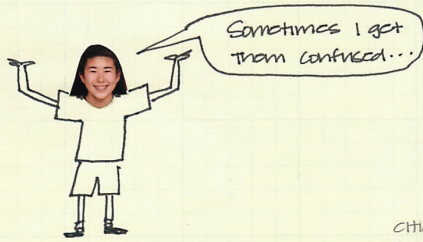
CASEY REVKIN-MAUGER
PARTNERS: THE FRIDAYT LAB FOLKS
2/3/95
HELP FROM: THE PHYSICS TEACHER

PHYSICS
A PERIOD
WED. LAB

LATE: 0 DAYS

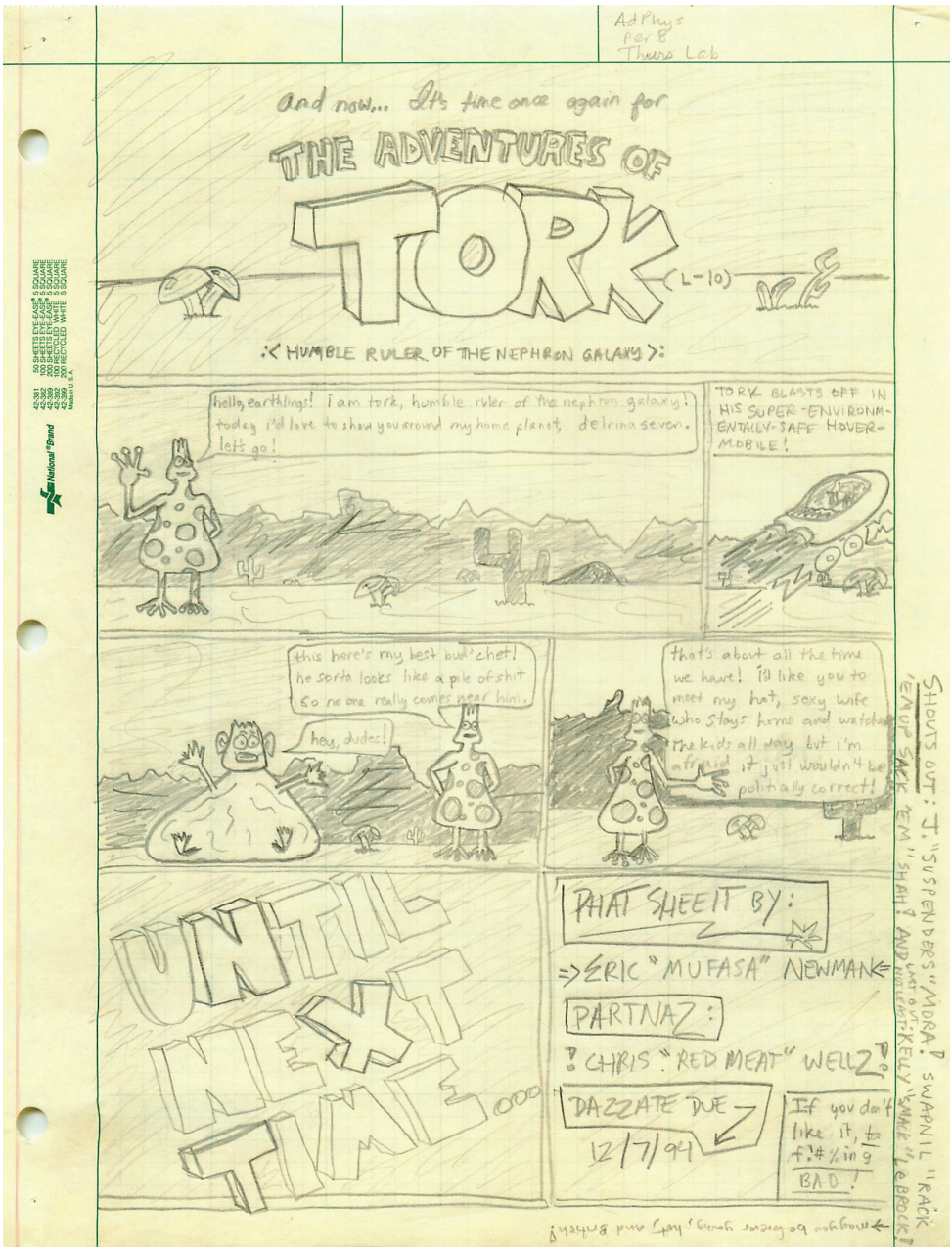
VECTORS (L.1)



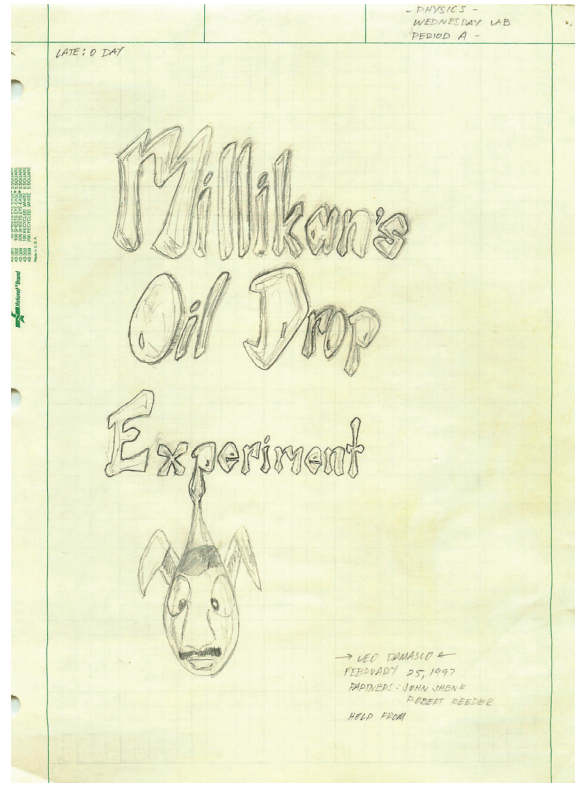


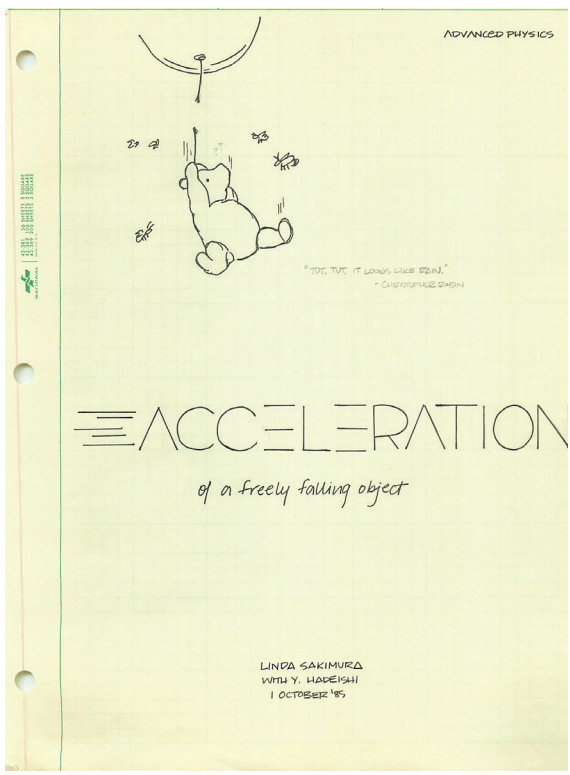
CHIEMI SUZUKI
PARTNERS: all of wed lab
DATE: Sept. 19, 1995
HELP FROM: Neha Patna, Sarah Bartlett, Katy Polsby

Torque lab


AdPhys
Per 8
Thurs Lab
and now... it's time once again for
THE ADVENTURES OF
TORK
(L-10)
:< HUMBLE RULER OF THE NEPHRON GALAXY >:
hello, earthlings! I am tork, humble ruler of the nephron galaxy! today i'd love to show you around my home planet, delrina seven. let's go!
TORK BLASTS OFF IN HIS SUPER-ENVIRONMENTALLY-SAFE HOVER-MOBILE!
this here's my best bud chet! he sorta looks like a pile of shit so no one really comes near him.
hey, dudes!
that's about all the time we have! I'd like you to meet my hot, sexy wife who stays home and watches the kids all day but i'm afraid it just wouldn't be politically correct!
SHOUTS OUT: J. "SUSPENDERS" MORA! SWAPNIL "RACK 'EM UP SACK 'EM" SHAH! AND LAST BUT NOT LEAST KELLY "SNAKE" BROOKS!
UNTIL NEXT TIME...
PHAT SHEEIT BY:
=> ERIC "MUFASA" NEWMAN
PARTNAZ:
CHRIS "RED MEAT" WELLZ
DAZZATE DUE 12/7/94
If you don't like it, f!#%ing BAD!
Imagine Beforere young, Arty and Bnhrsf

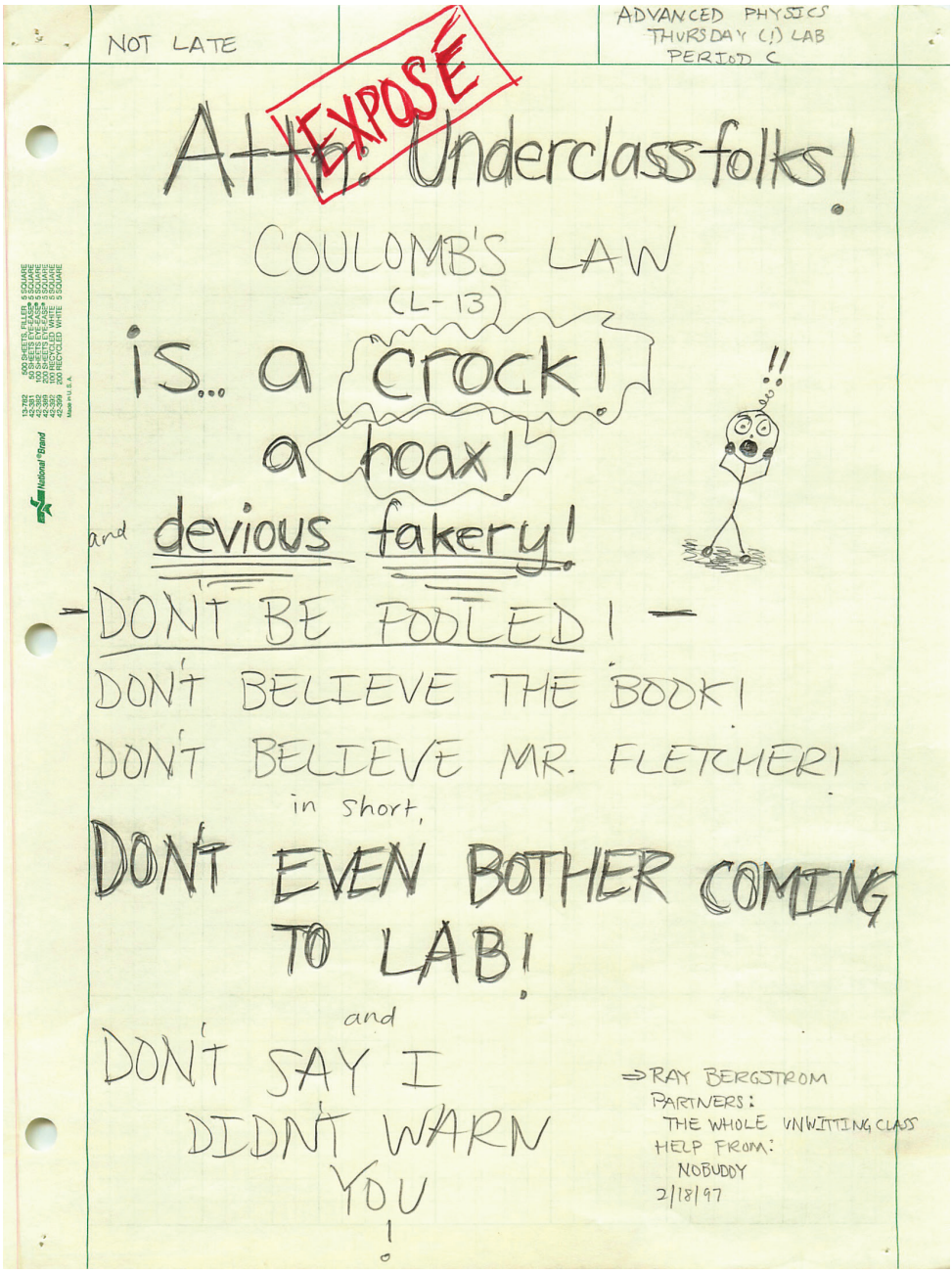
Millikan Oildrop Experiment



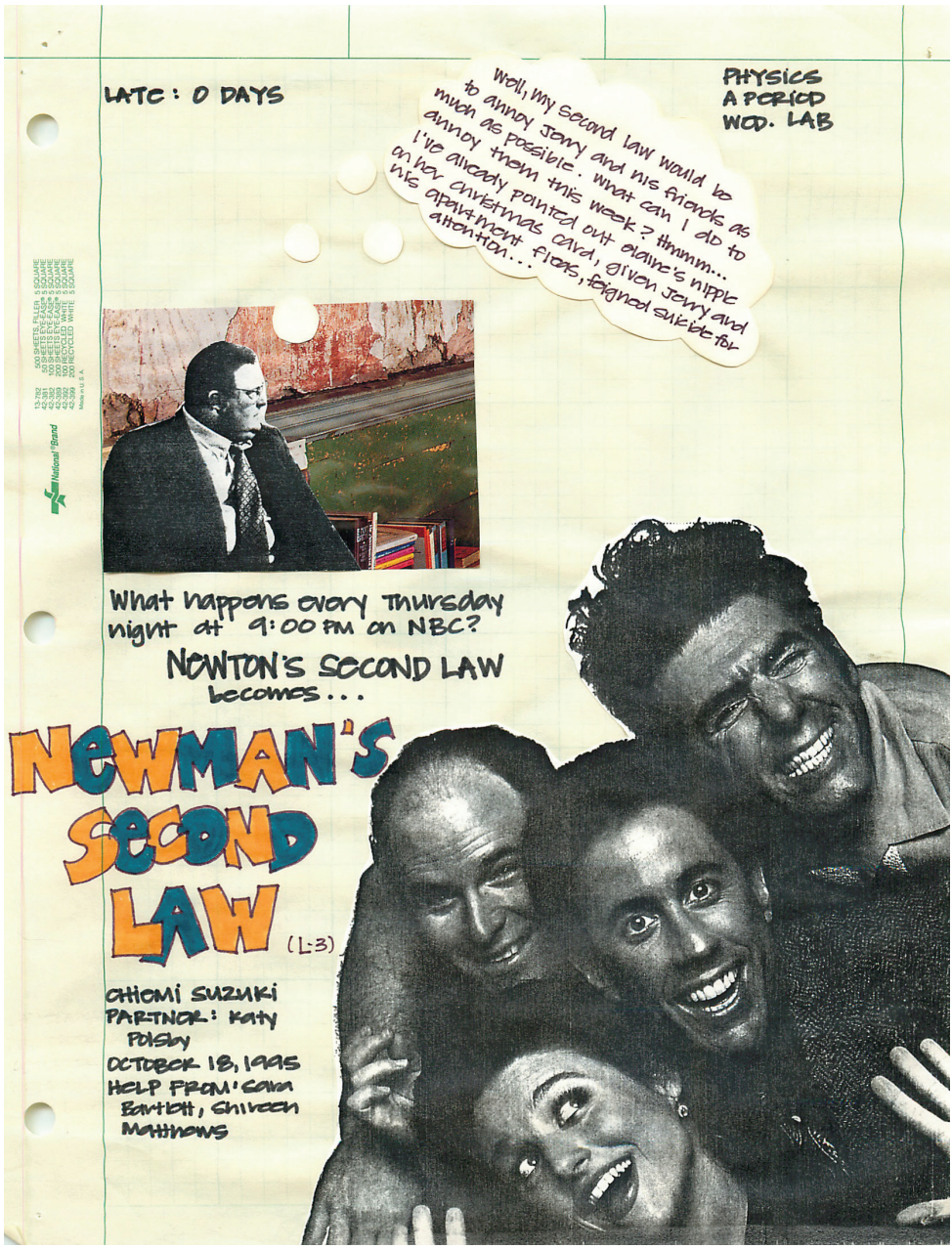


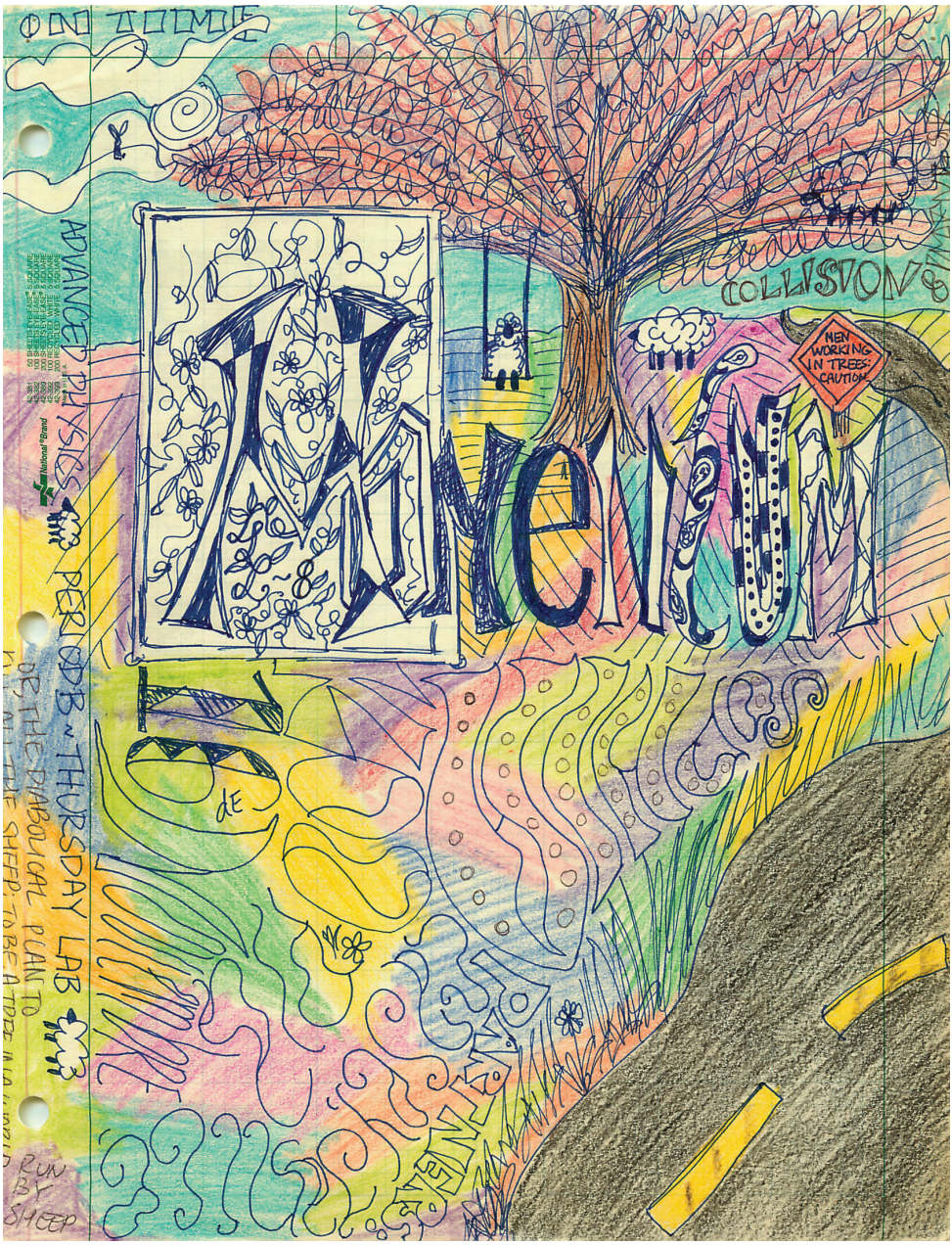
Freefall lab

Coulomb's Law lab



Newton's Second Law lab




MOMENTUM
COLLISIONS
MEN WORKING IN TREES: CAUTION
ADVANCED PHYSICS PERIOD 8 ~ THURSDAY LAB
DE
RUN BY SHEEP

Ballistic Pendulum lab

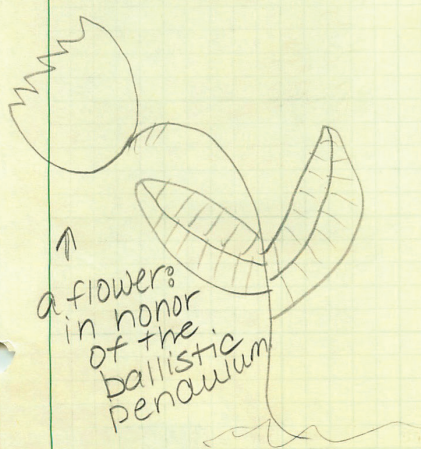
aa. Physics
E Period
Tues. Lab

1 Day Late

an ODE TO THE BALLISTIC PENDULUM:

How do I loathe thee?
Let me count the ways...
You left me with a high % error,
I am still in a daze.
Try what I might,
you would not turn out right.
Nightmares of you will haunt my brain,
I hope you get run over by a train.

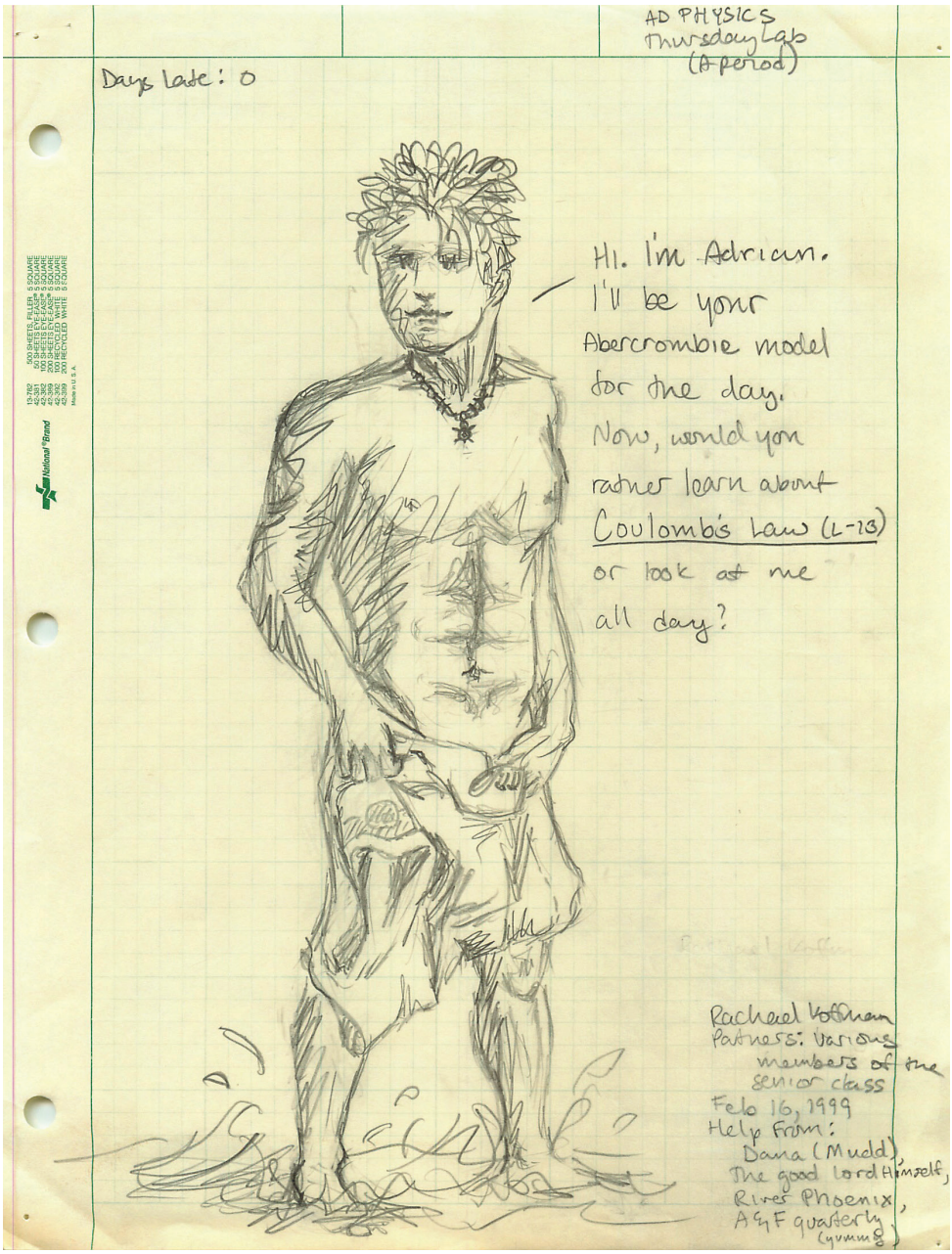
THE END.
by ashley owen
(you can call me
the next Elizabeth
Barrett Browning)



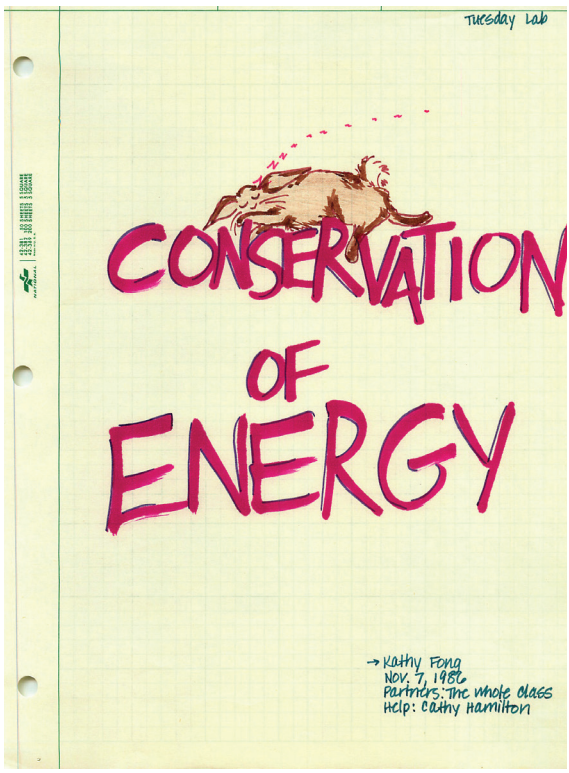
↑ a flower in honor of the ballistic pendulum

ashley owen
Partner:
all by my lonesome
Help by:
David Hunnecke

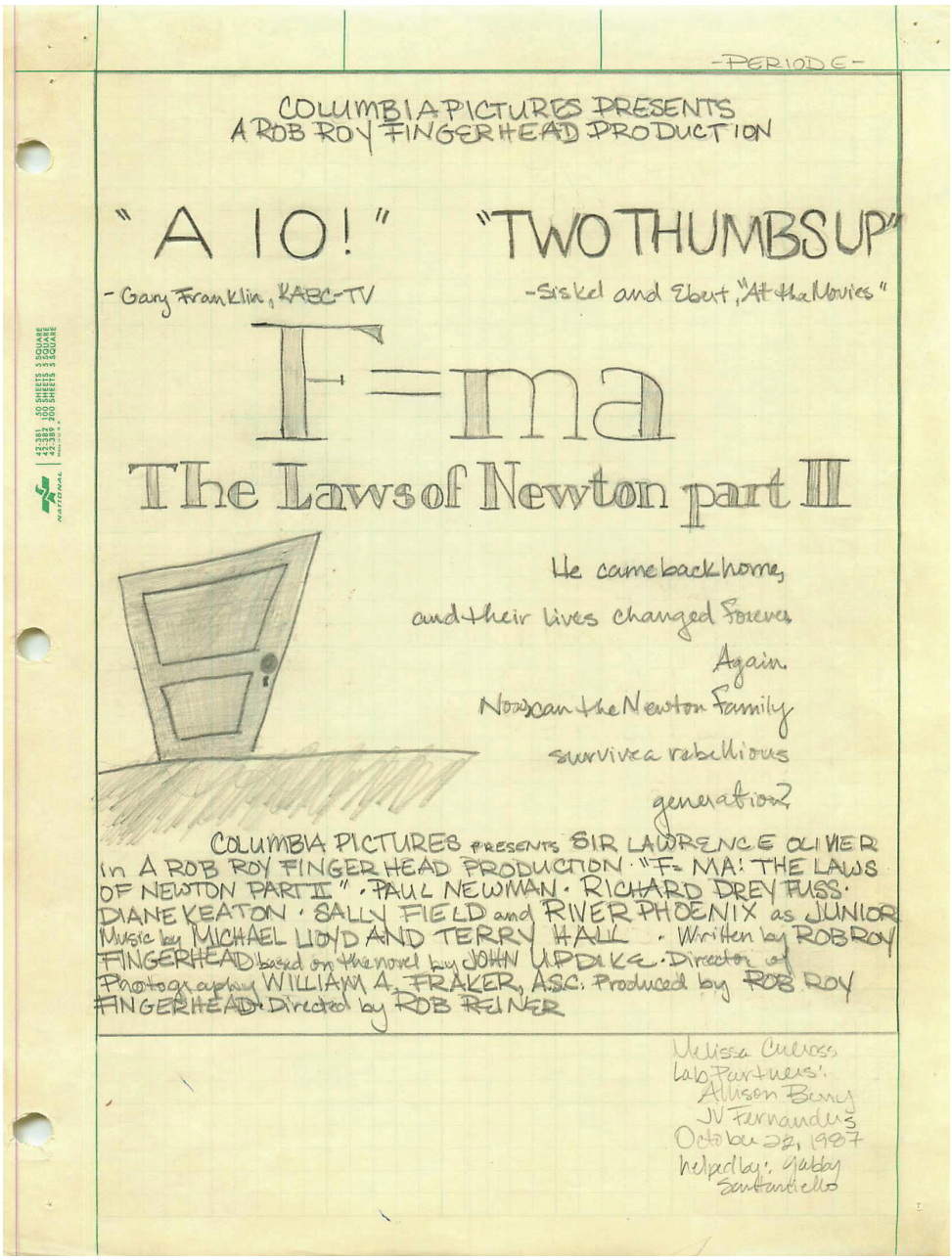
Coulomb's Law lab



Kinematics lab



Conservation of Energy lab



-PERIOD E-

COLUMBIA PICTURES PRESENTS
A ROB ROY FINGERHEAD PRODUCTION

"A 10!" - Gary Franklin, KABC-TV

"TWO THUMBS UP" -Sisk and Ebert, "At the Movies"

F=ma

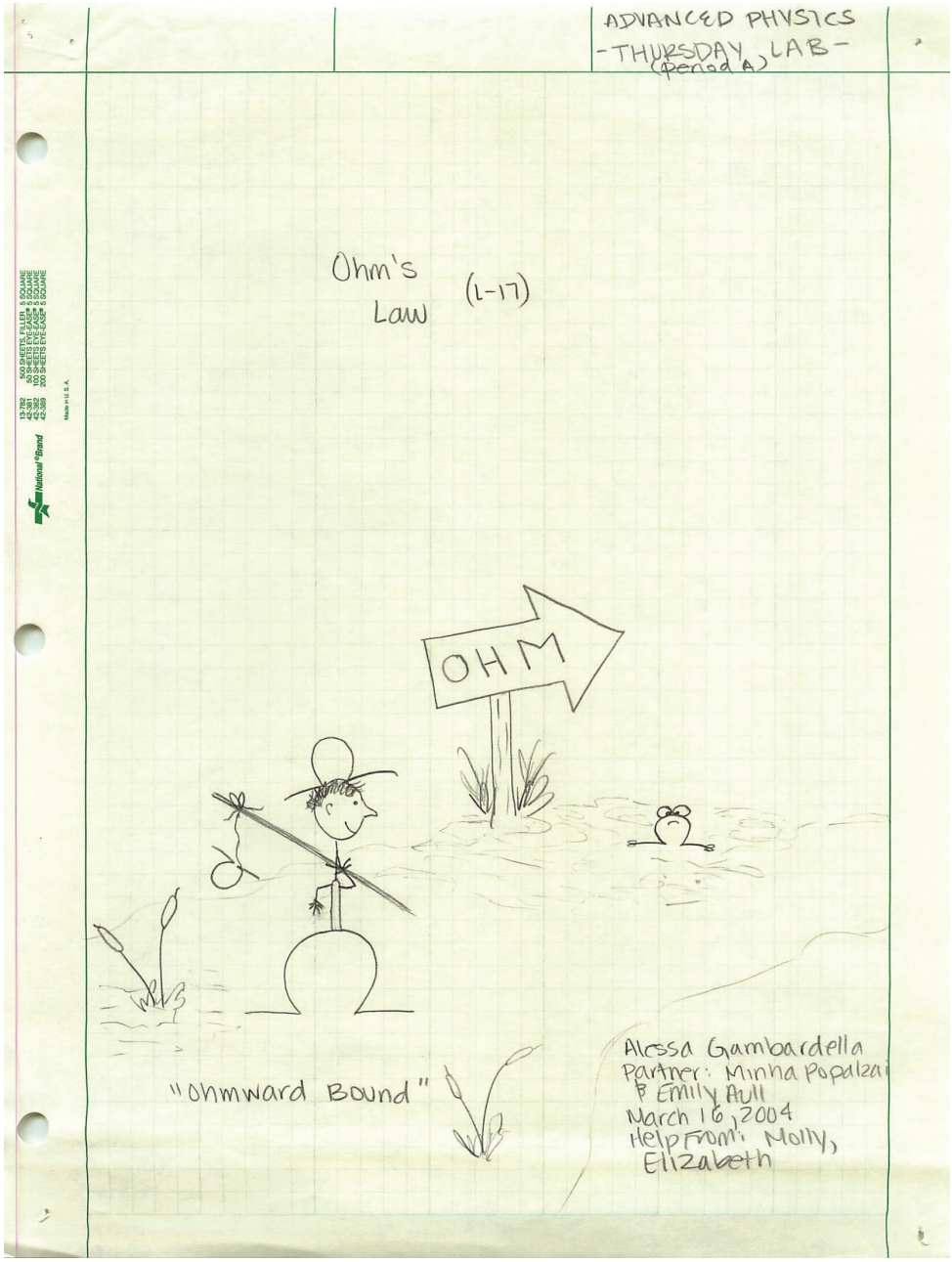
The Laws of Newton part III

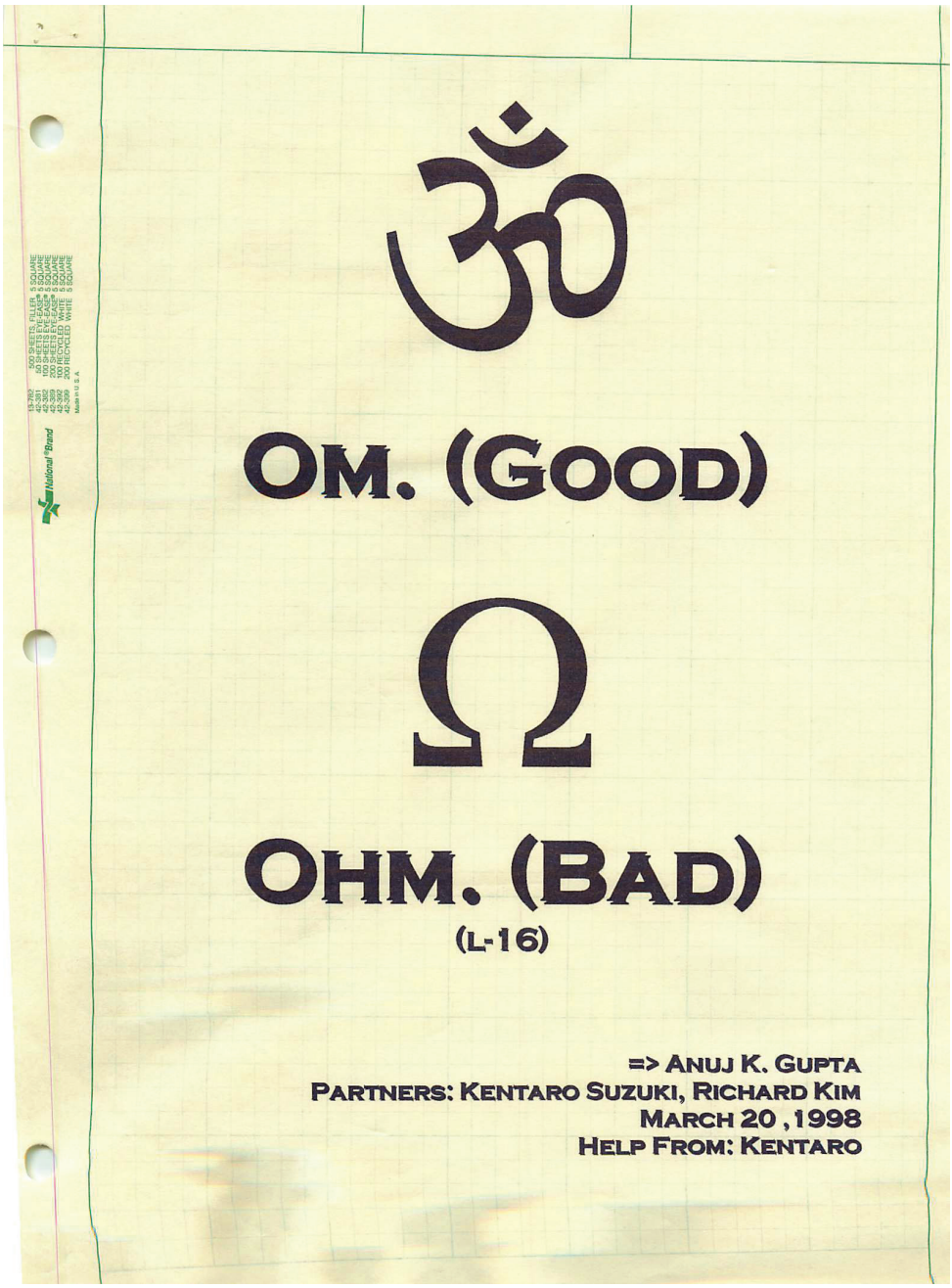
He came back home,
and their lives changed forever.
Again.
Now can the Newton family
survive a rebellious
generation?

COLUMBIA PICTURES presents SIR LAWRENCE OLIVER in A ROB ROY FINGERHEAD PRODUCTION. "F= MA! THE LAWS OF NEWTON PART II". PAUL NEWMAN. RICHARD DREYFUSS. DIANE KEATON. SALLY FIELD and RIVER PHOENIX as JUNIOR. Music by MICHAEL LLOYD AND TERRY HALL. Written by ROB ROY FINGERHEAD based on the novel by JOHN UPDIKE. Director of Photography WILLIAM A. FRAKER, A.S.C. Produced by ROB ROY FINGERHEAD. Directed by ROB REINER

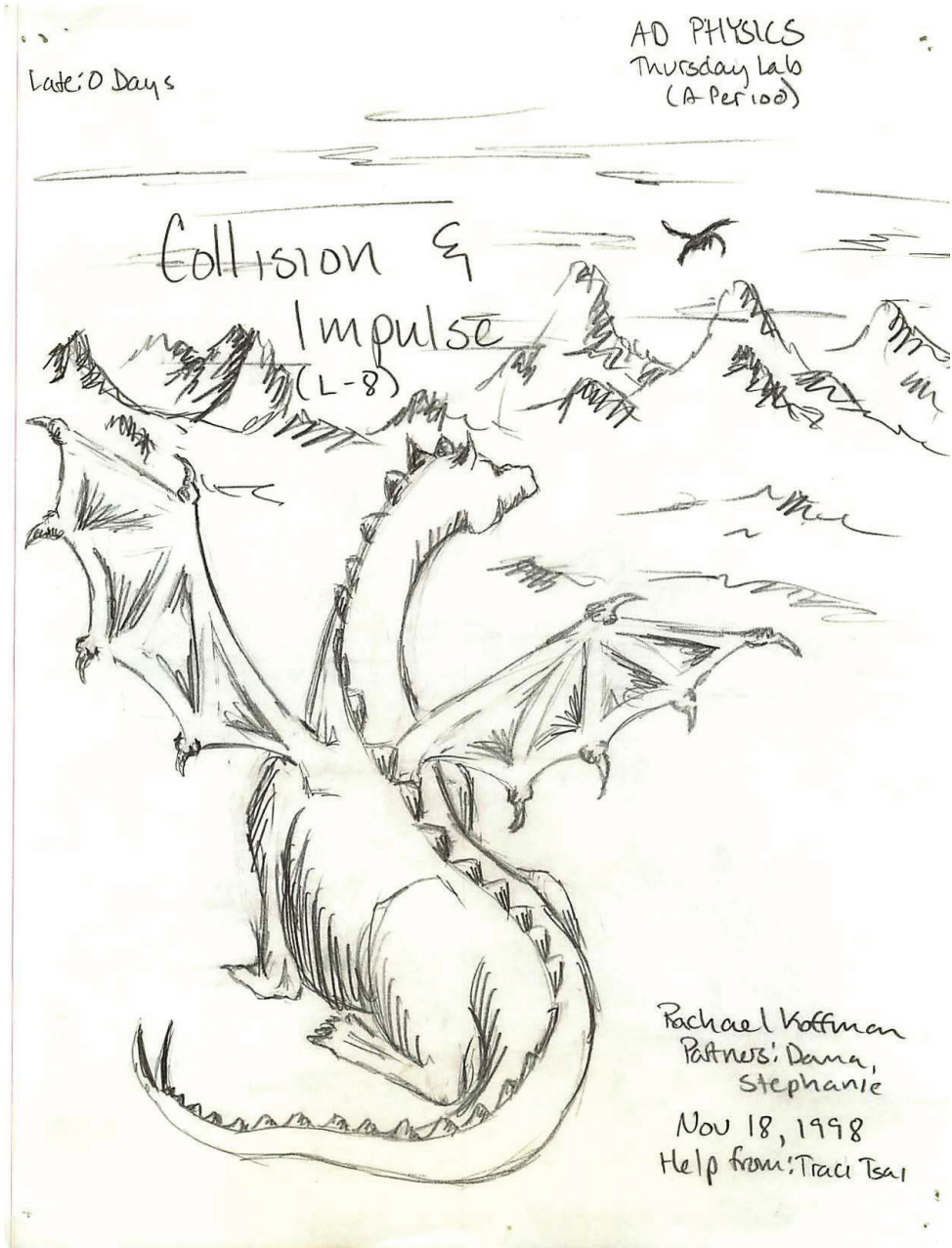
Melissa Cuevas
Lab Partners:
Allison Berry
JV Fernandes
October 28, 1997
helpful: Gabby
Santantiello

Ohm's Law lab


ADVANCED PHYSICS
-THURSDAY LAB-
(Period A)
Ohm's Law (L-17)
OHM
"Ohmward Bound"
Alexsa Gambardella
Partner: Minna Popalzai
& Emily Aull
March 16, 2004
Help From: Molly, Elizabeth

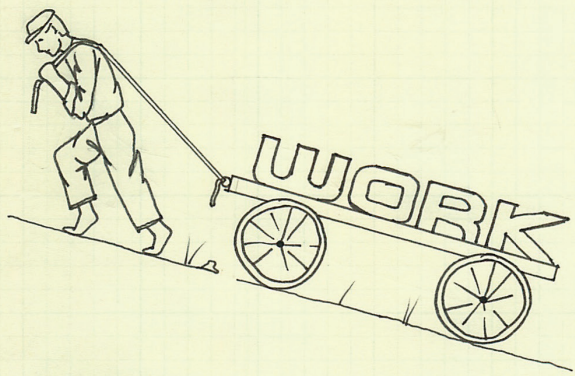

ॐ
OM. (GOOD)
Ω
OHM. (BAD)
(L-16)
=> ANUJ K. GUPTA
PARTNERS: KENTARO SUZUKI, RICHARD KIM
MARCH 20 ,1998
HELP FROM: KENTARO

Collision and Impulse lab



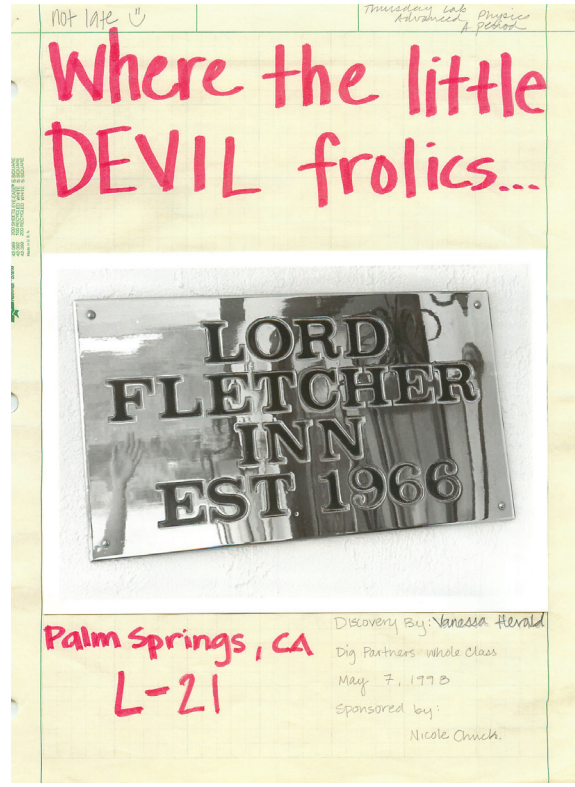
Work lab

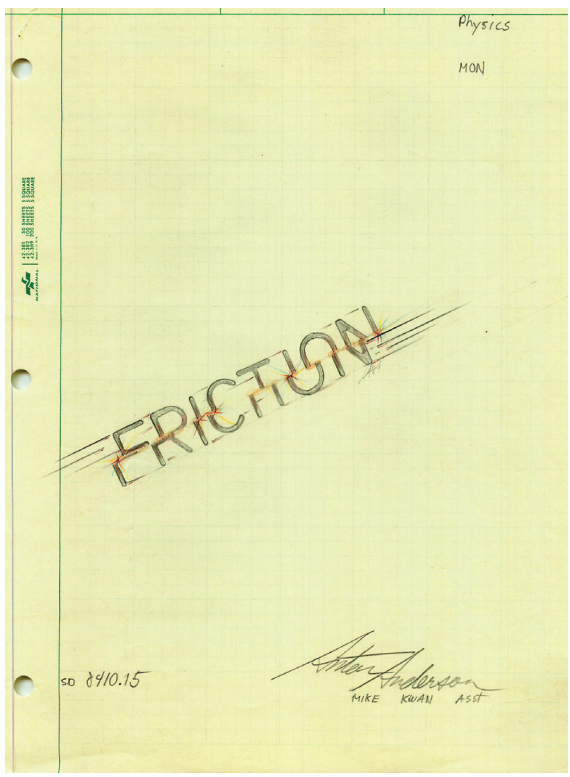
Advanced Physics



Stephen Chiu
October 23, 1984
Lab Partner:
Jack Yuen

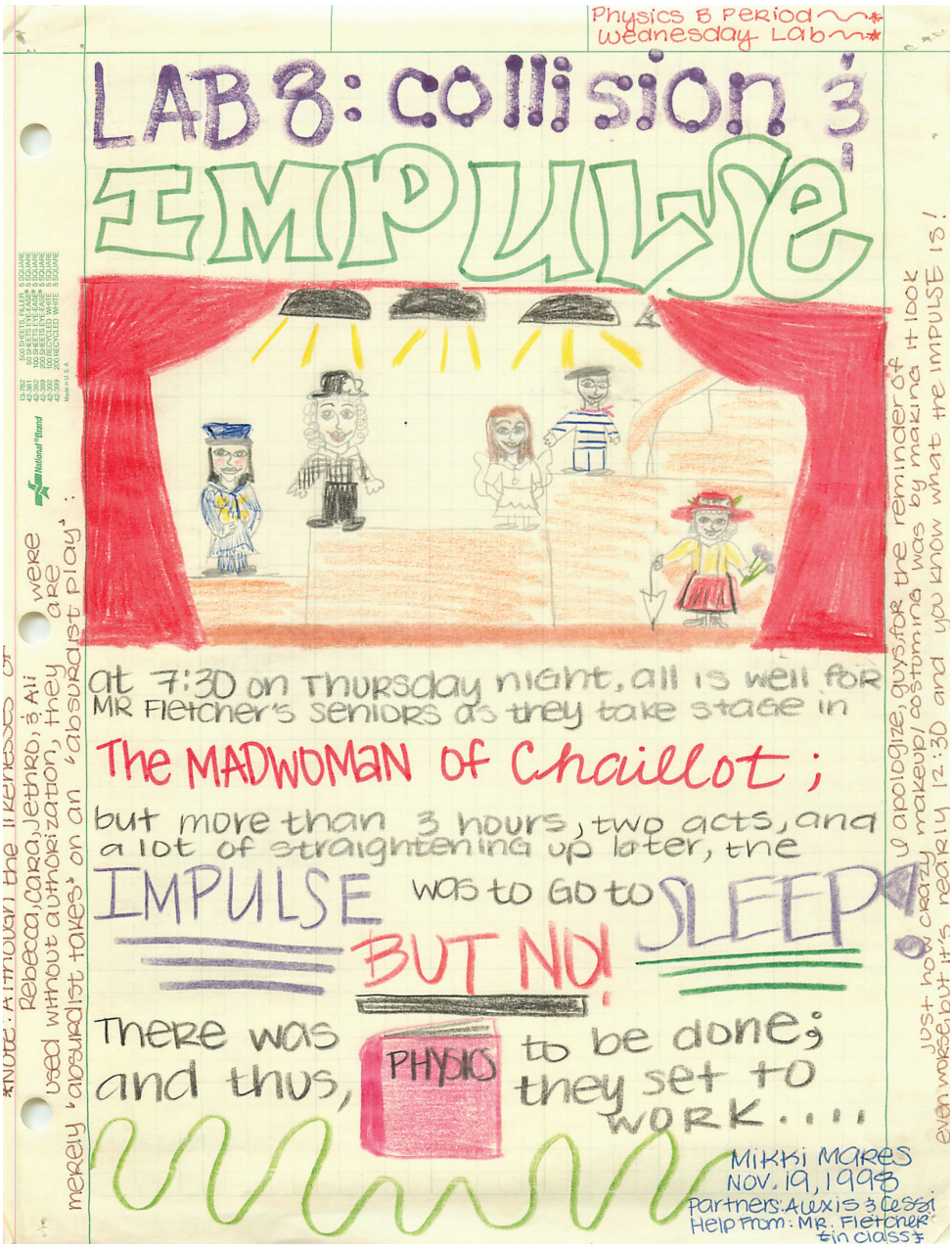
Who knows?





Friction lab

Collision and Impulse lab

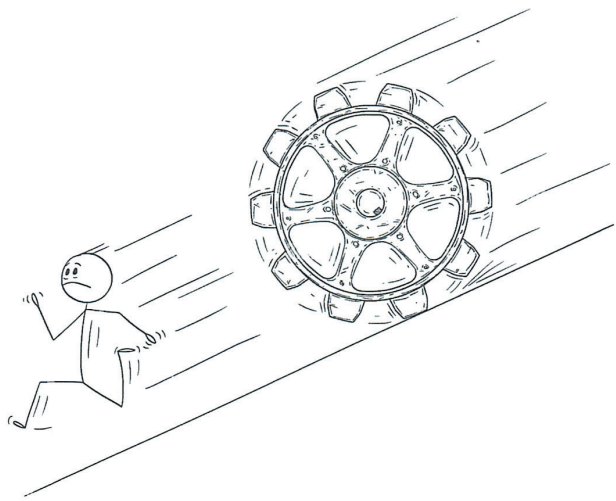


Late: N/A

AP Physics
Period C

The Great Rolling Objects Lab

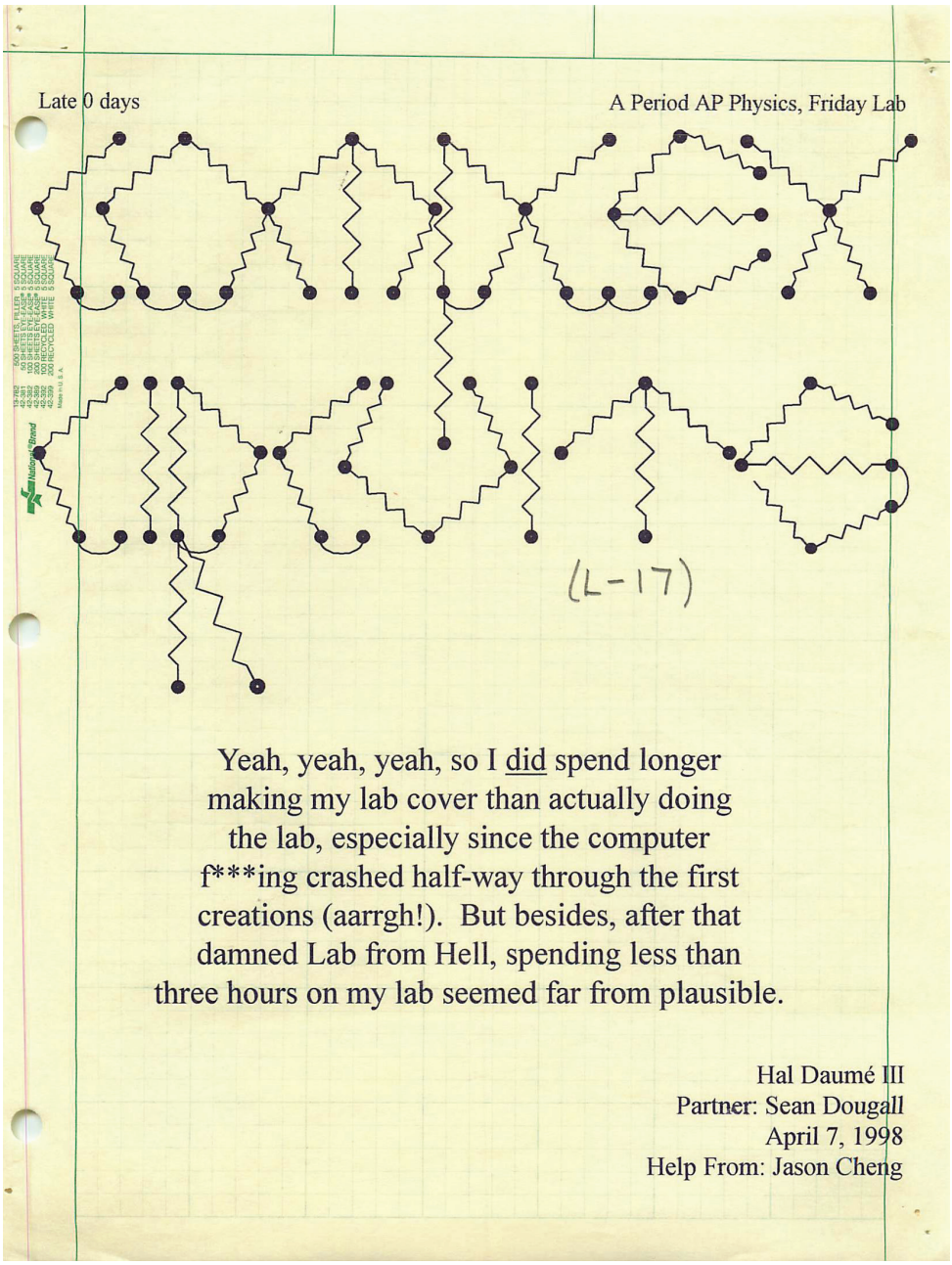
(L-10)



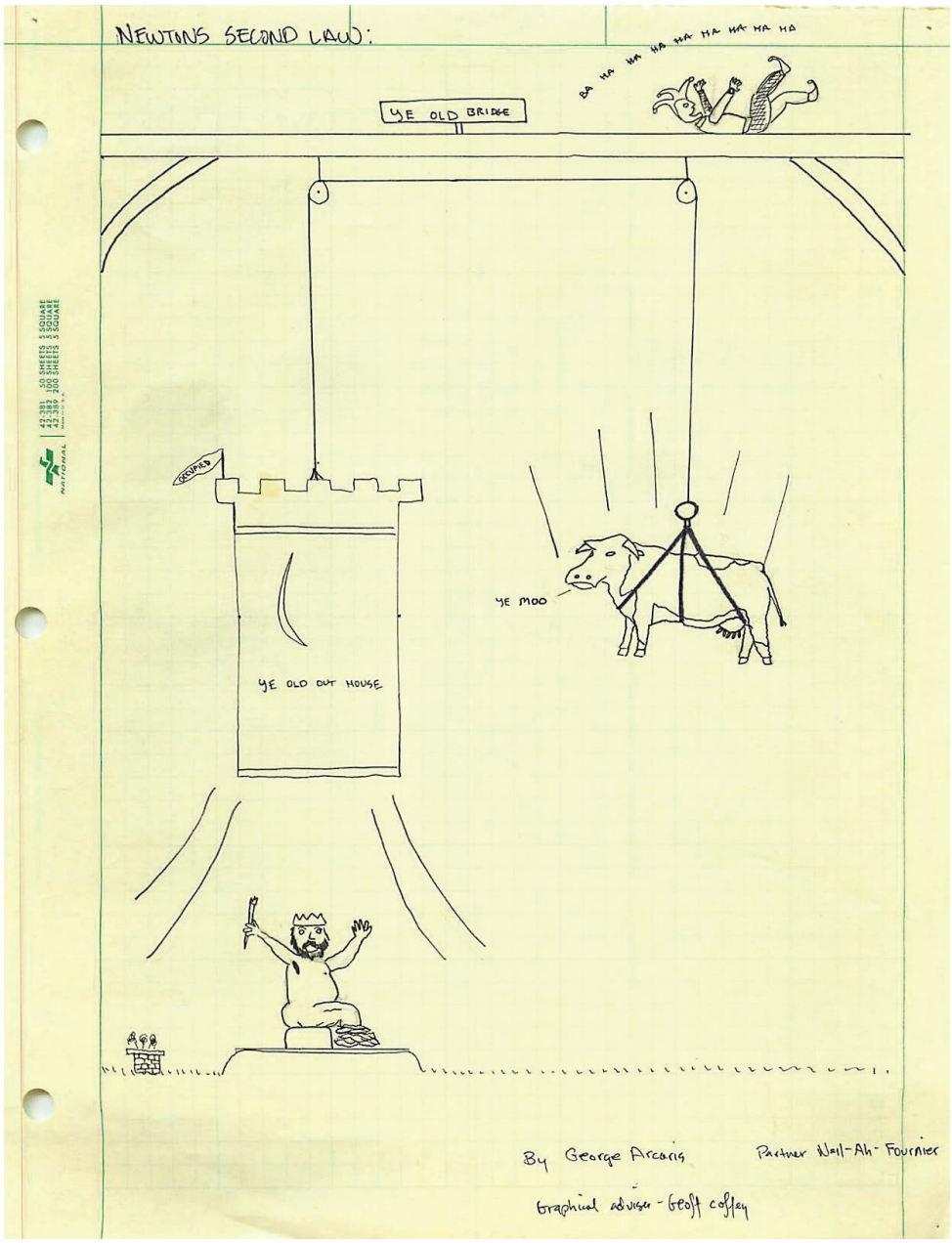
Help From: N/A

Alejandro Ceva
January 2022
Partners: Martin Ladekarl
& Nina Turner

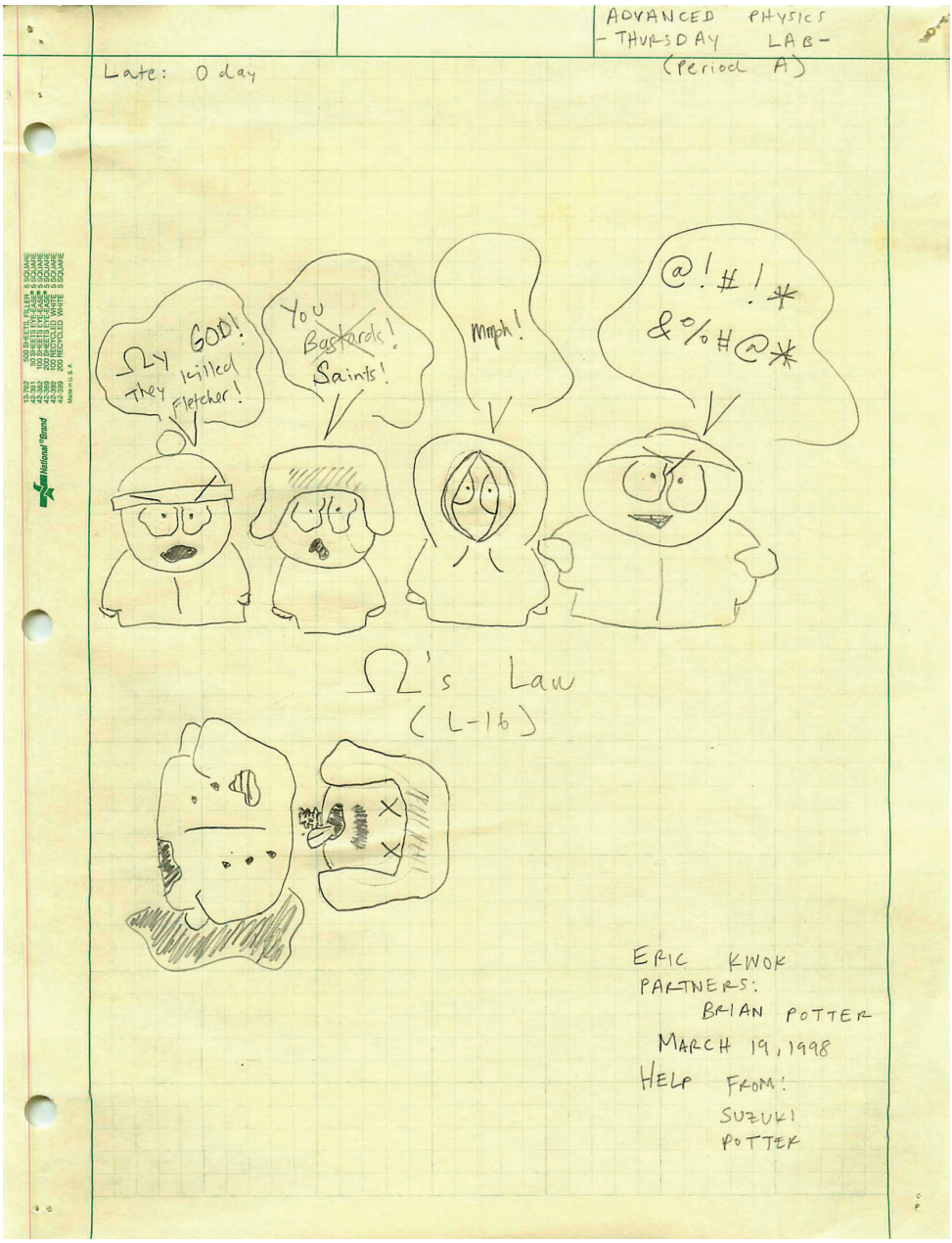
Complex Circuits lab



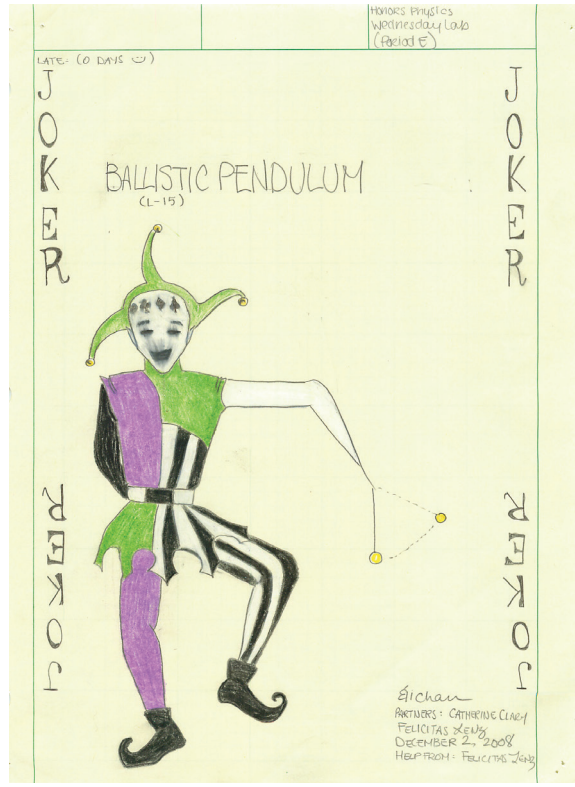
Newton's Second Law lab

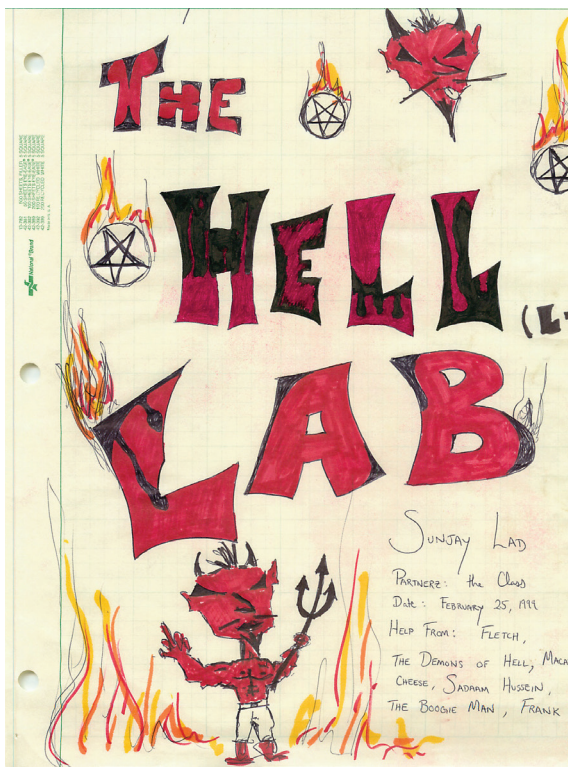


Ohm's Law lab


ADVANCED PHYSICS
- THURSDAY LAB -
(Period A)
Late: 0 day
ΩY GOD! They killed Fletcher!
You Bastards! Saints!
Mmph!
@!#!*
&%#@*
Ω's Law
(L-16)
ERIC KWOK
PARTNERS:
BRIAN POTTER
MARCH 19, 1998
HELP FROM:
SUZUKI
POTTER

Ballistic Pendulum lab





Potential and Electric Field of Flat Conducting Plate

Days Late: 0 (got an extension)

Physics... It makes the world go round...

Torque

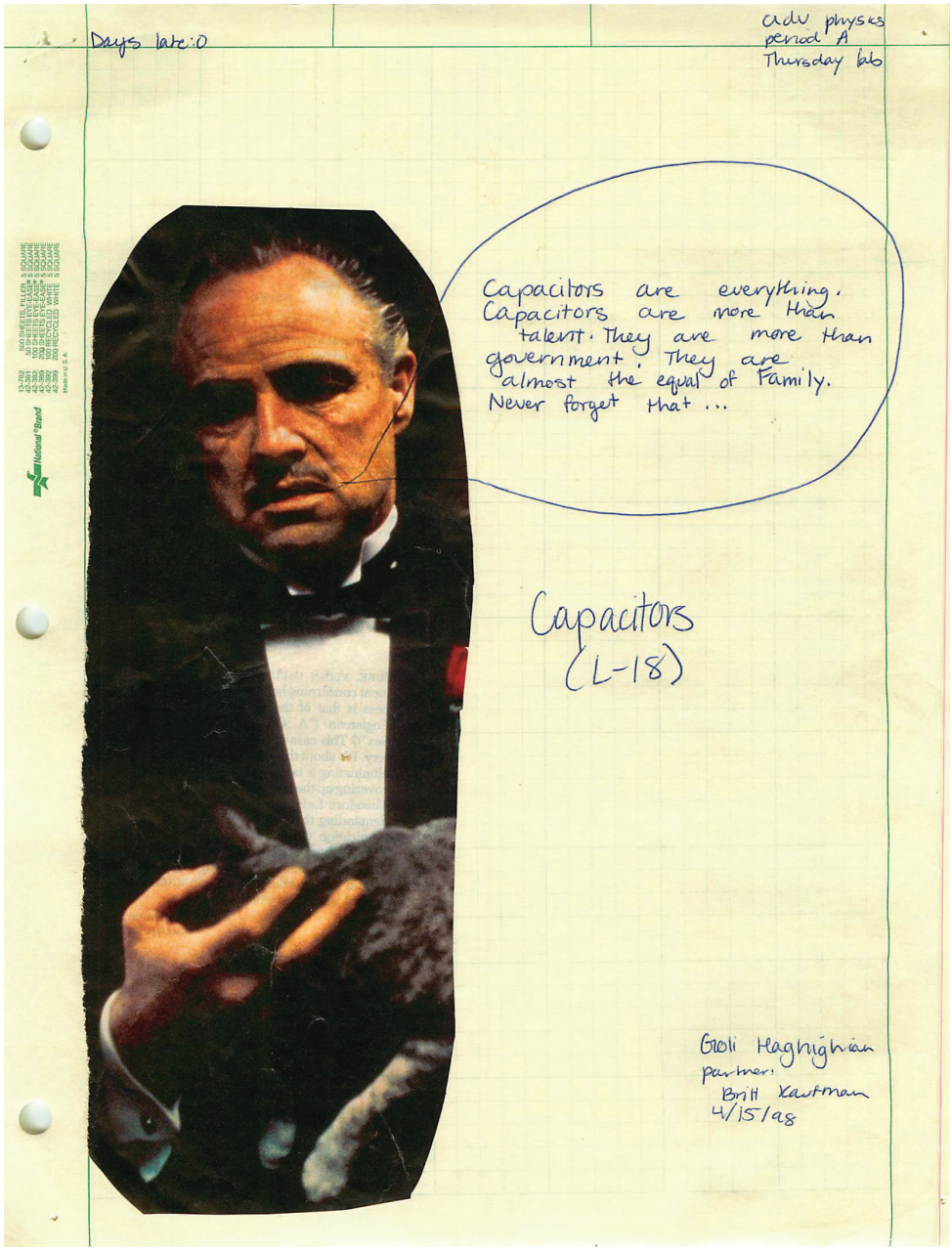
(Lab-14)

MERRY CHRISTMAS!

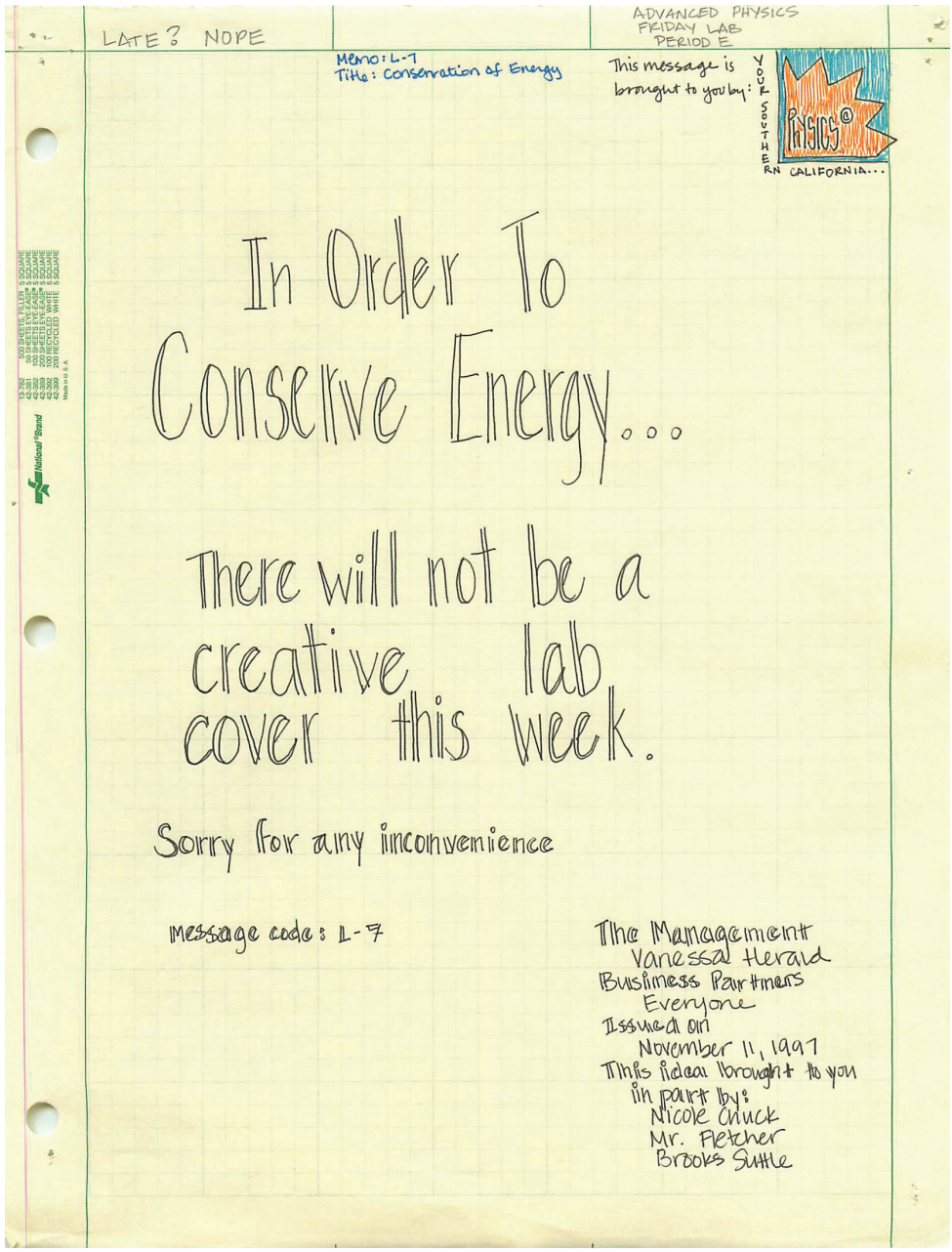
Help from: Hayden Betts
Lauren Christopher

Name: Alexis Gensle
Partners: Britt Gates-Kayemm
Lauren Christopher
Date: 12/21/11
Period: C, Honors

Capacitors lab



Conservation of Energy lab



Late: 1/2 day

Advanced Physics
Period 1
Friday lab

Collision and Impulse
(L-8)

→ Brendan Taylor
Partners: Jason Rizley
help: Syd
Date: 11/19/97

___ Late/ # of Days__0__
Check if - God Forbid- appropriate

Physics
Tuesday Lab
Period A

Generic Lab Cover

Lab # (check appropriate box)

☐ L-1 Vectors	☐ L-5 Centripetal Force	☐ L-9 Rigid Bodies
☐ L-2 Kinematics	☐ L-6 Work	☐ L-10 Torque
☐ L-3 Newton's 2nd law	☐ L-7 Conservation of energy	☐ L-11 Waves
☐ L-4 Friction	☒ L-8 Collision & Impulse	☐ L-12 Pendulum

Students (check appropriate box)

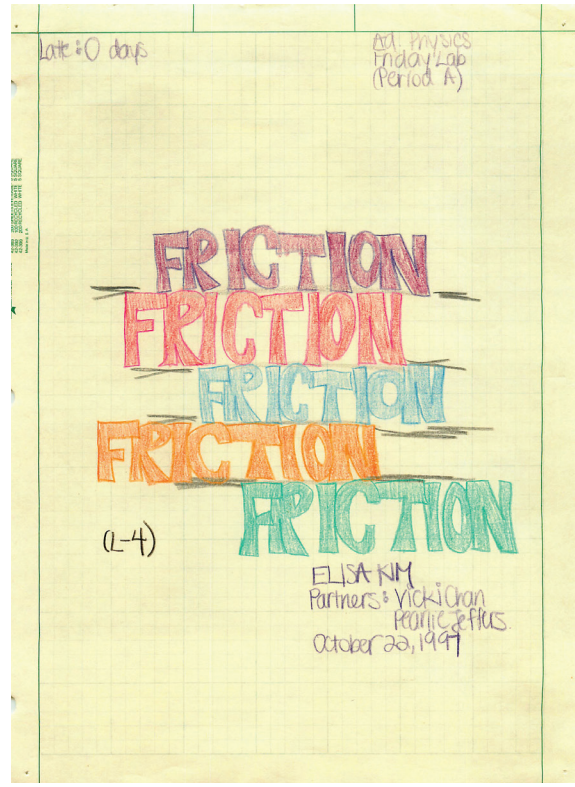
Principal	Partner(s)	Name
☒	☐	Lauren B
☐	☒	Jennifer B
☐	☐	Sarah B
☐	☒	Lisa H
☐	☒	Kelly C
☐	☐	Erin S
☐	☐	Jennifer M
☐	☐	Emma T
☐	☐	Carolyn P
☐	☐	Caroline L
☐	☐	Jeanette P

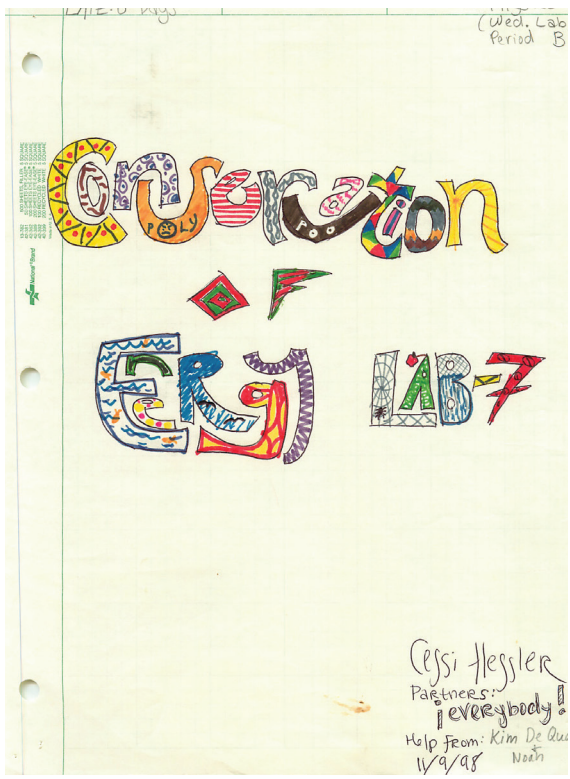
Help From: (Not necessarily in order)

- ☐ Mr. Fletcher
- ☐ Caltech Physics Dept.
- ☐ Frank
- ☐ God
- ☒ Other (Fill in blank) Dad

Copyright 1996 Baum Enterprises
Guaranteed to comply with lab cover requirements as set forth on page I and II of Fletcher, "Physics Laboratory Manual"
Call 1-800- GO NEWTON for refills

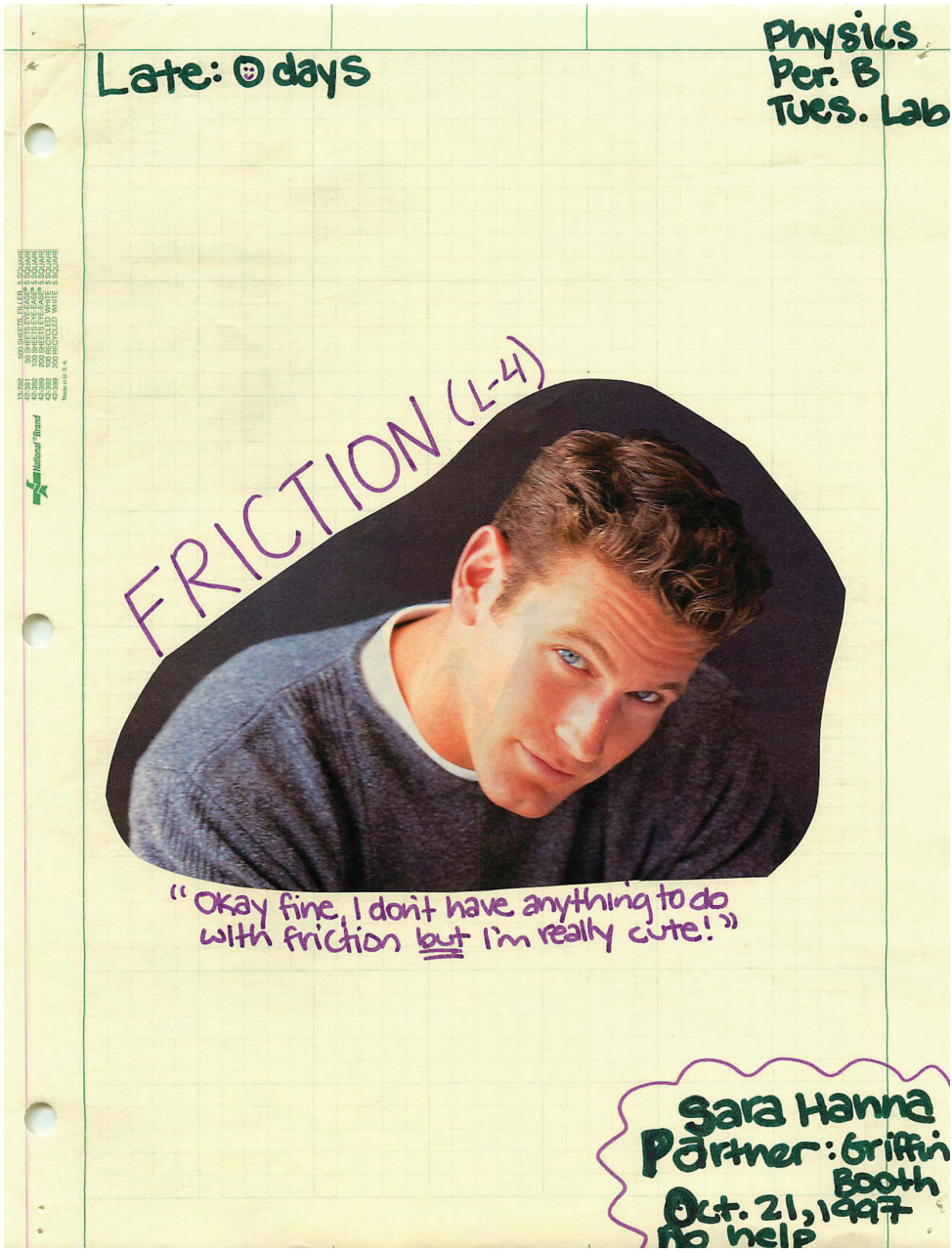
Friction lab





Conservation of Energy lab

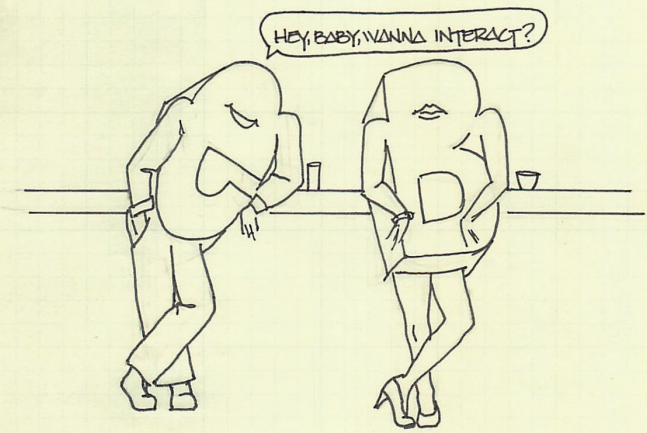
Kinematics lab


Late: ☺ days
Physics
Per. B
Tues. Lab
FRICTION (1-4)
"Okay fine, I don't have anything to do with friction but I'm really cute!"
Sara Hanna
Partner: Griffin Booth
Oct. 21, 1997
No help

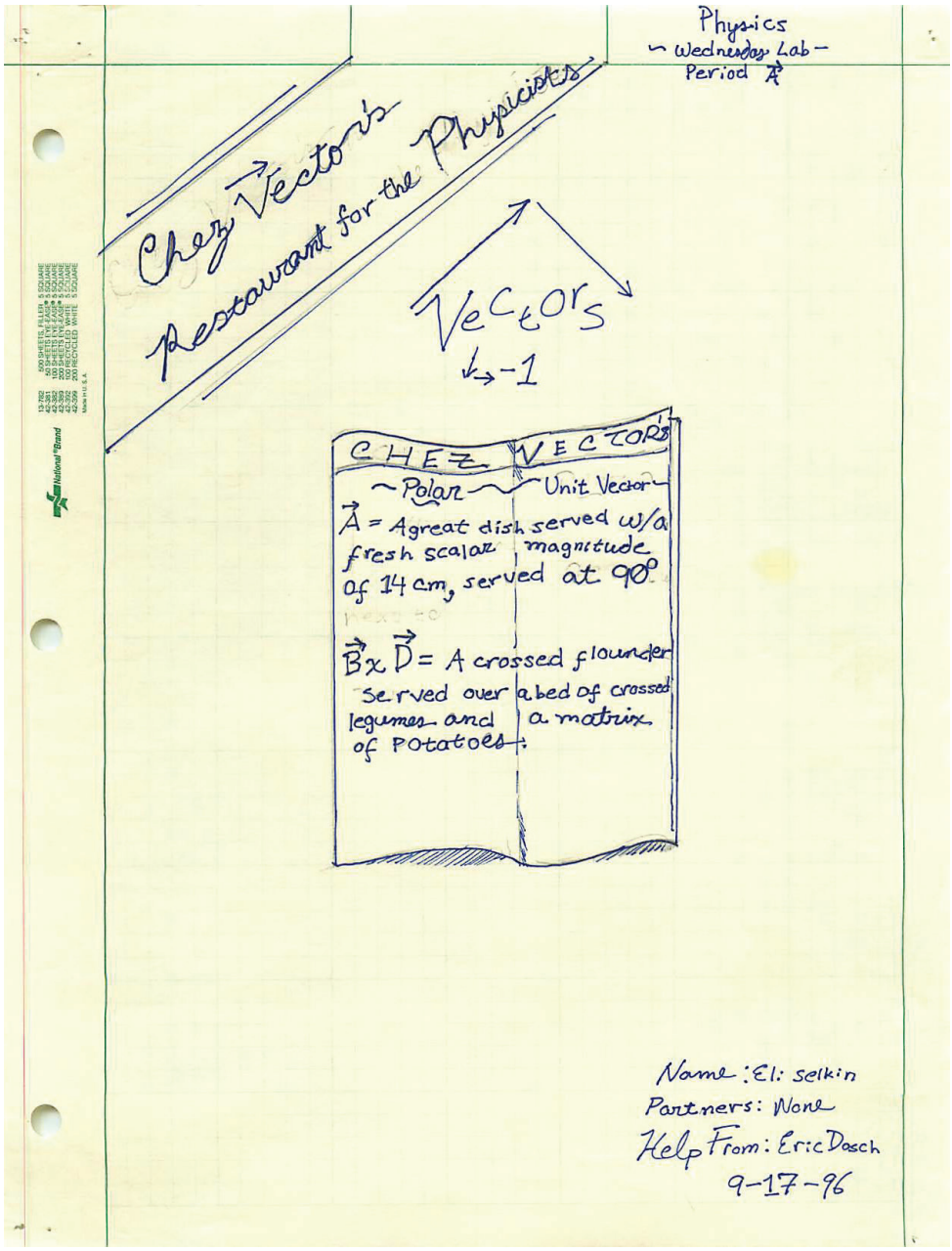
Electric Field Interaction With a Magnetic Field

ADVANCED PHYSICS

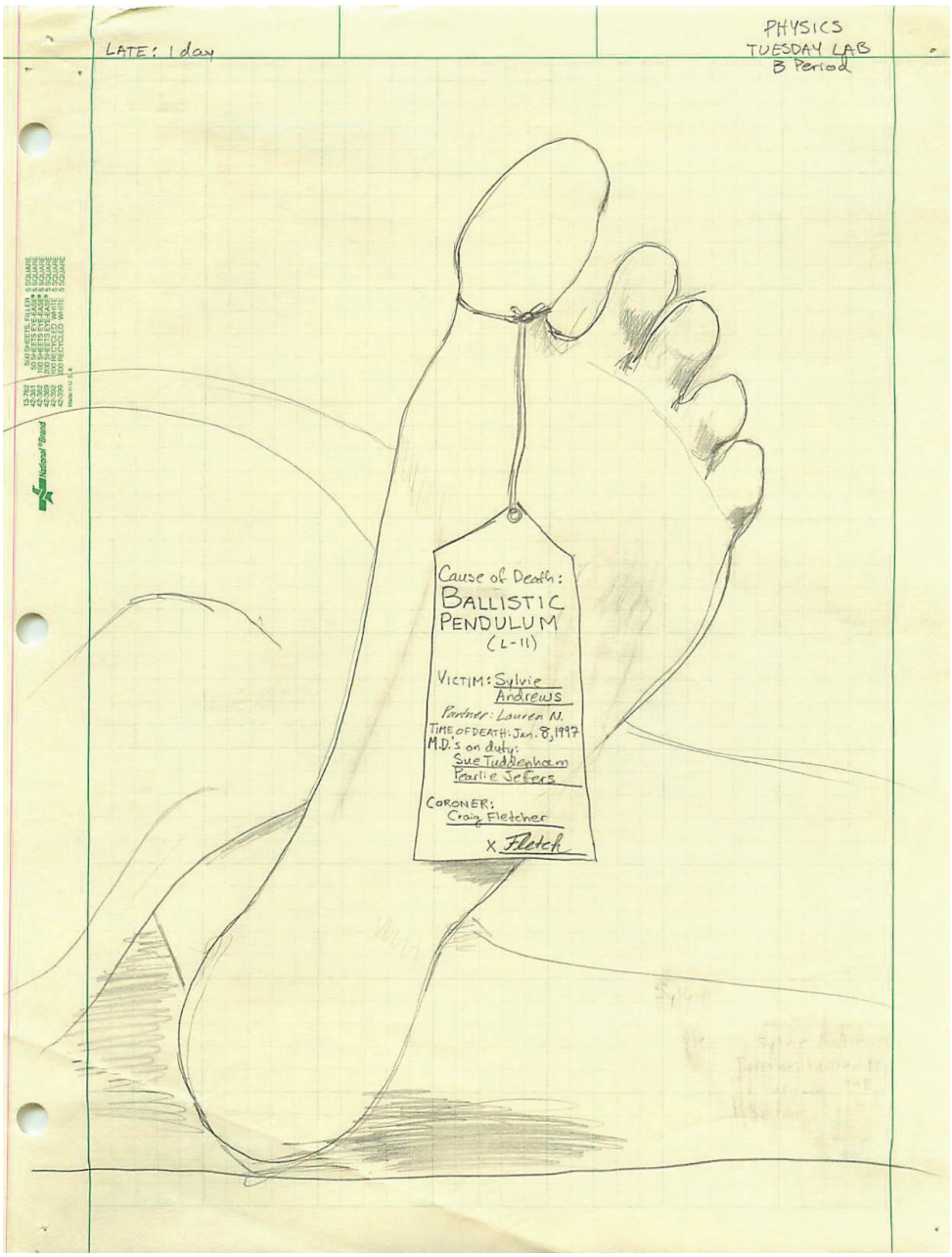
ELECTRON INTERACTION WITH A MAGNETIC FIELD



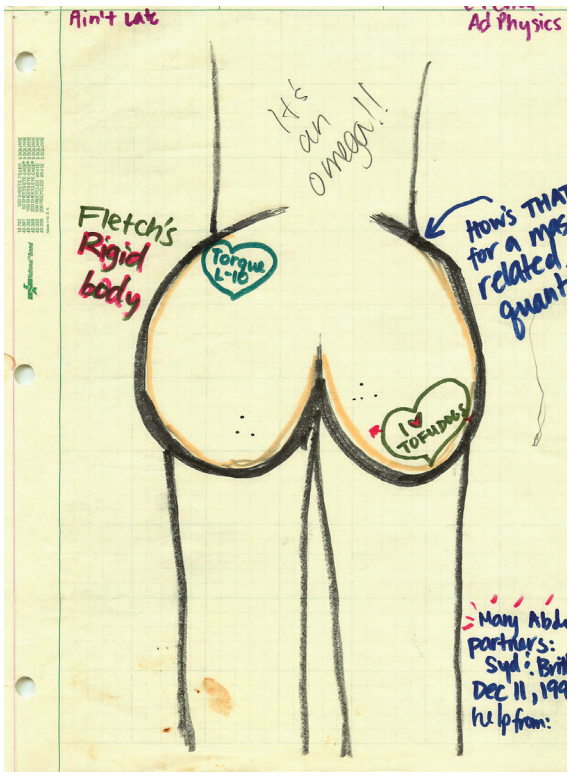
STEPHEN CHILI
APRIL 16, 1985
LAB PARTNERS
DAVID MORALES
JEAN RHIM


Physics
~ Wednesday Lab ~
Period $\vec{A}$
Chez Vector's
Restaurant for the Physicists
VeCtOrS
↓→ -1
CHEZ VECTORS
~ Polar ~ Unit Vector ~
$\vec{A}$ = A great dish served w/a fresh scalar magnitude of 14 cm, served at 90°
$\vec{B} \times \vec{D}$ = A crossed flounder served over a bed of crossed legumes and a matrix of potatoes.
Name: El: selkin
Partners: None
Help From: Eric Dasch
9-17-96

Ballistic Pendulum lab

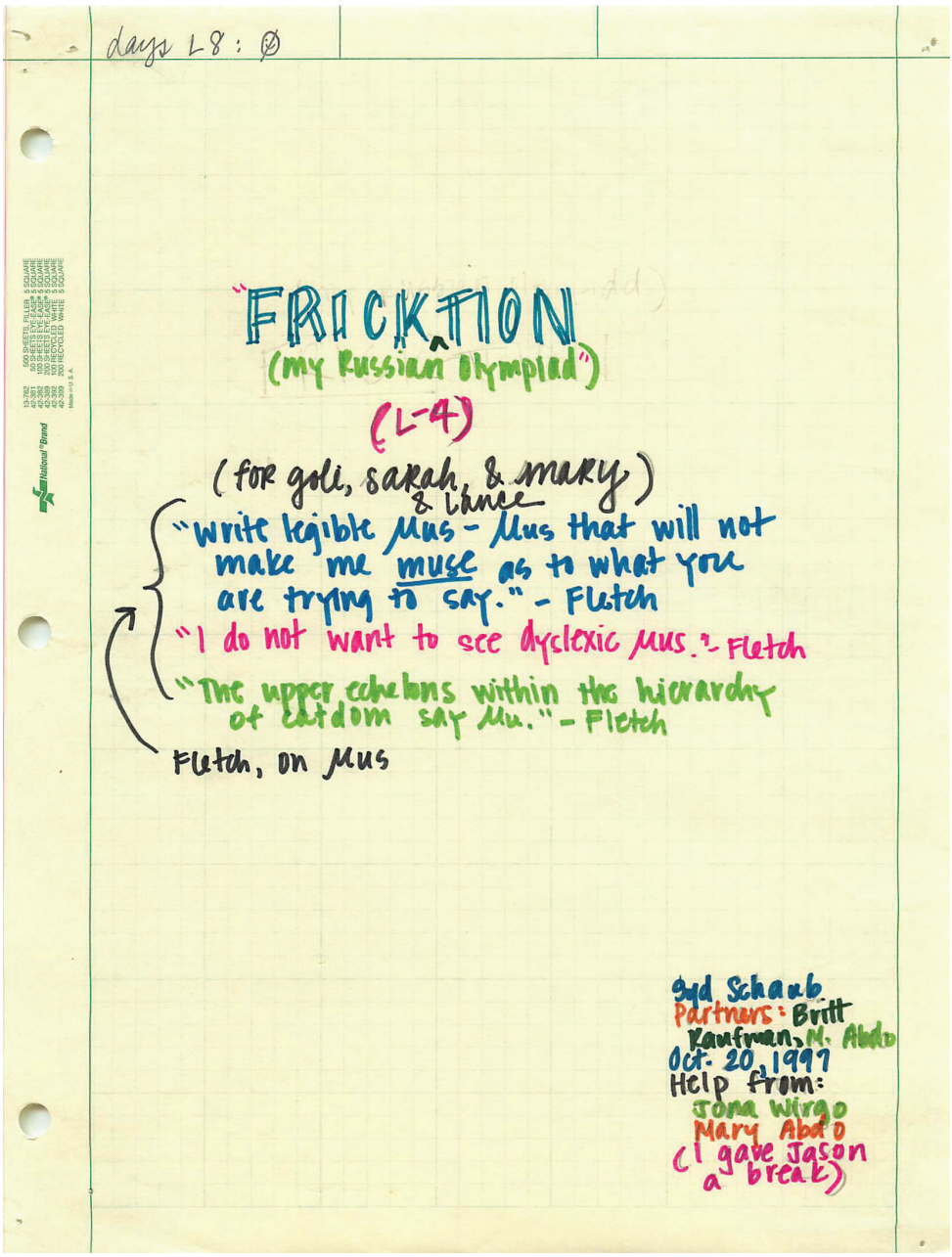


Vectors lab

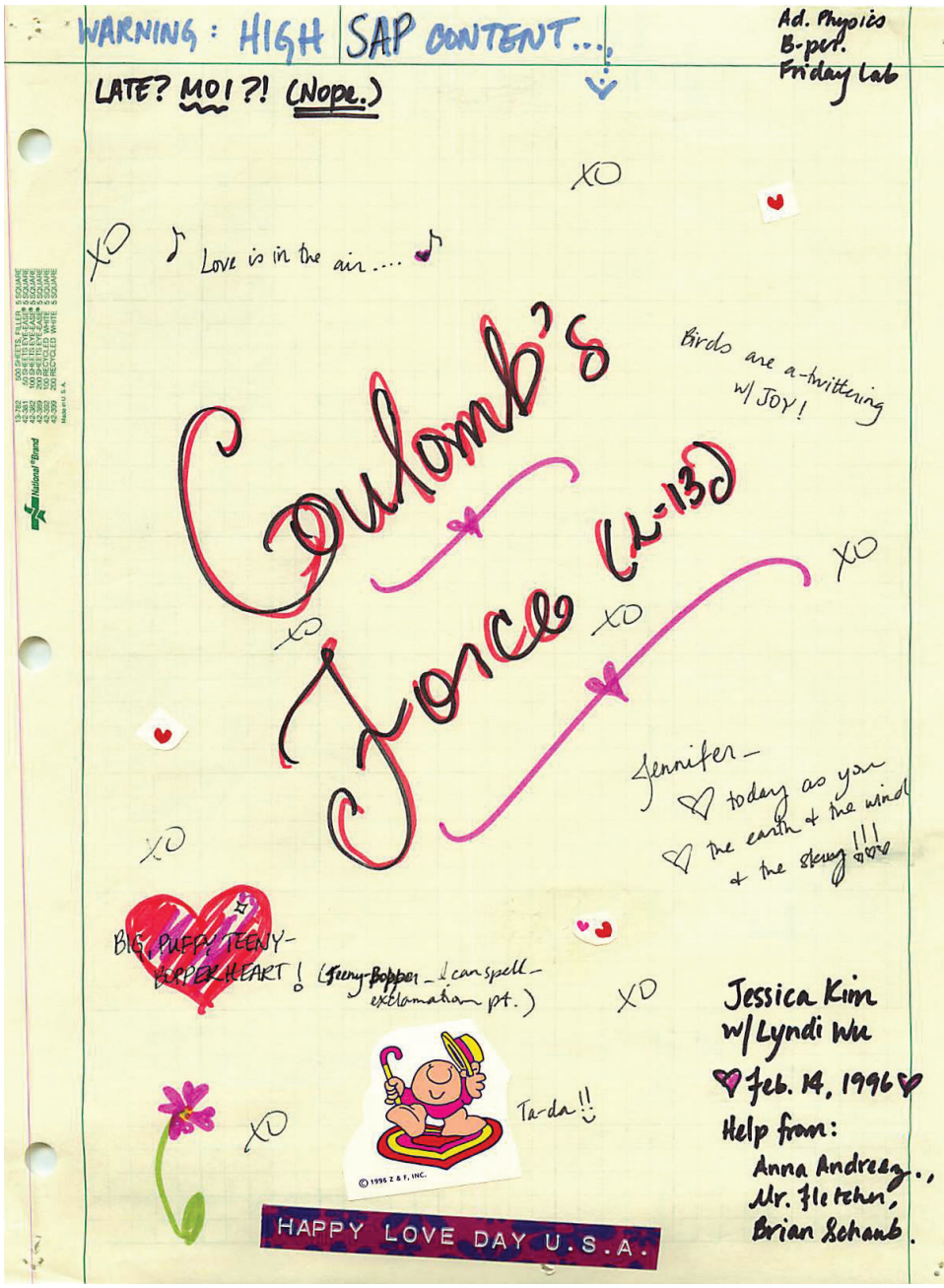


Ohm's Law lab (note that it's supposed to be a baby omega ω)

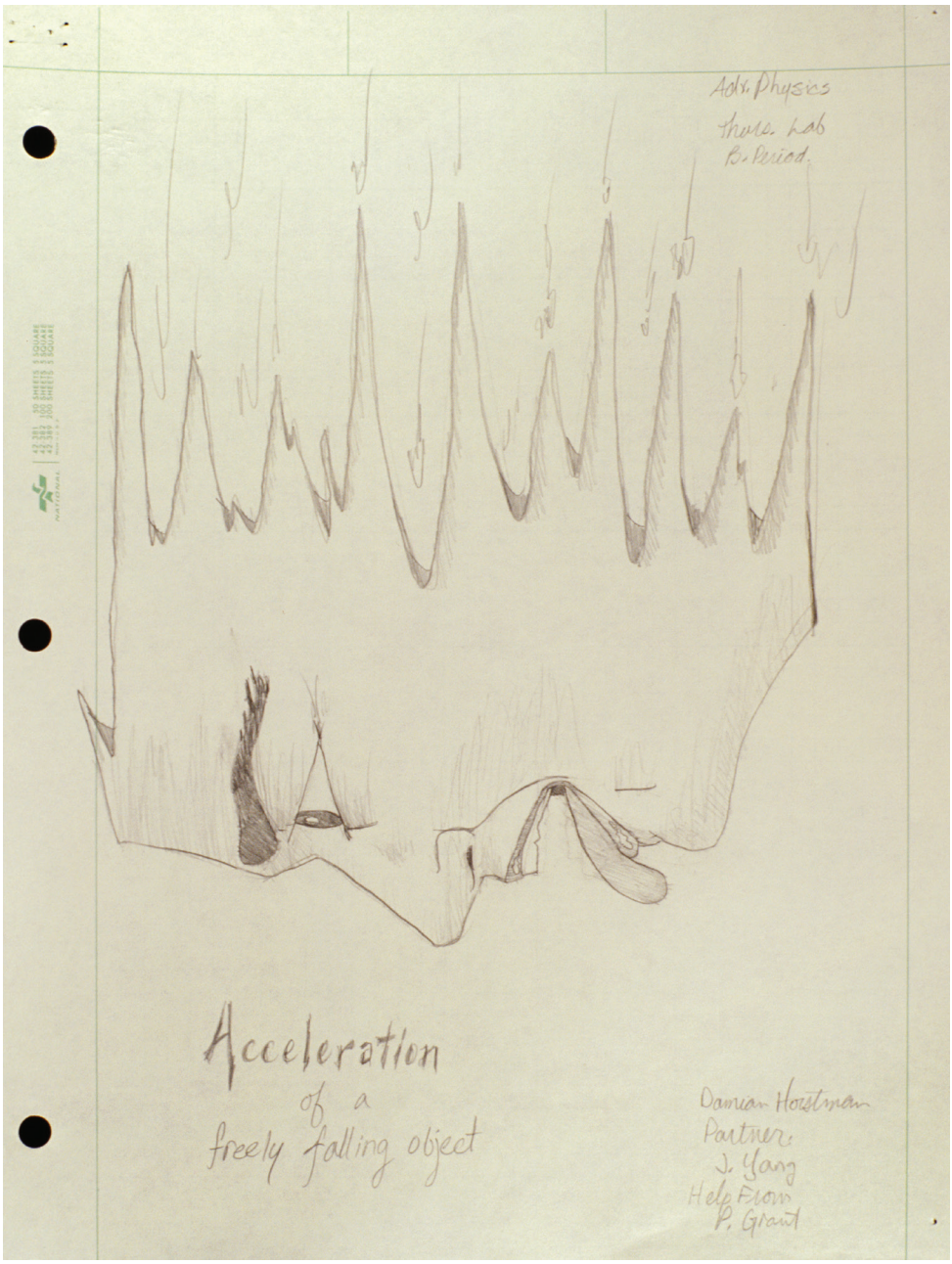
Friction lab



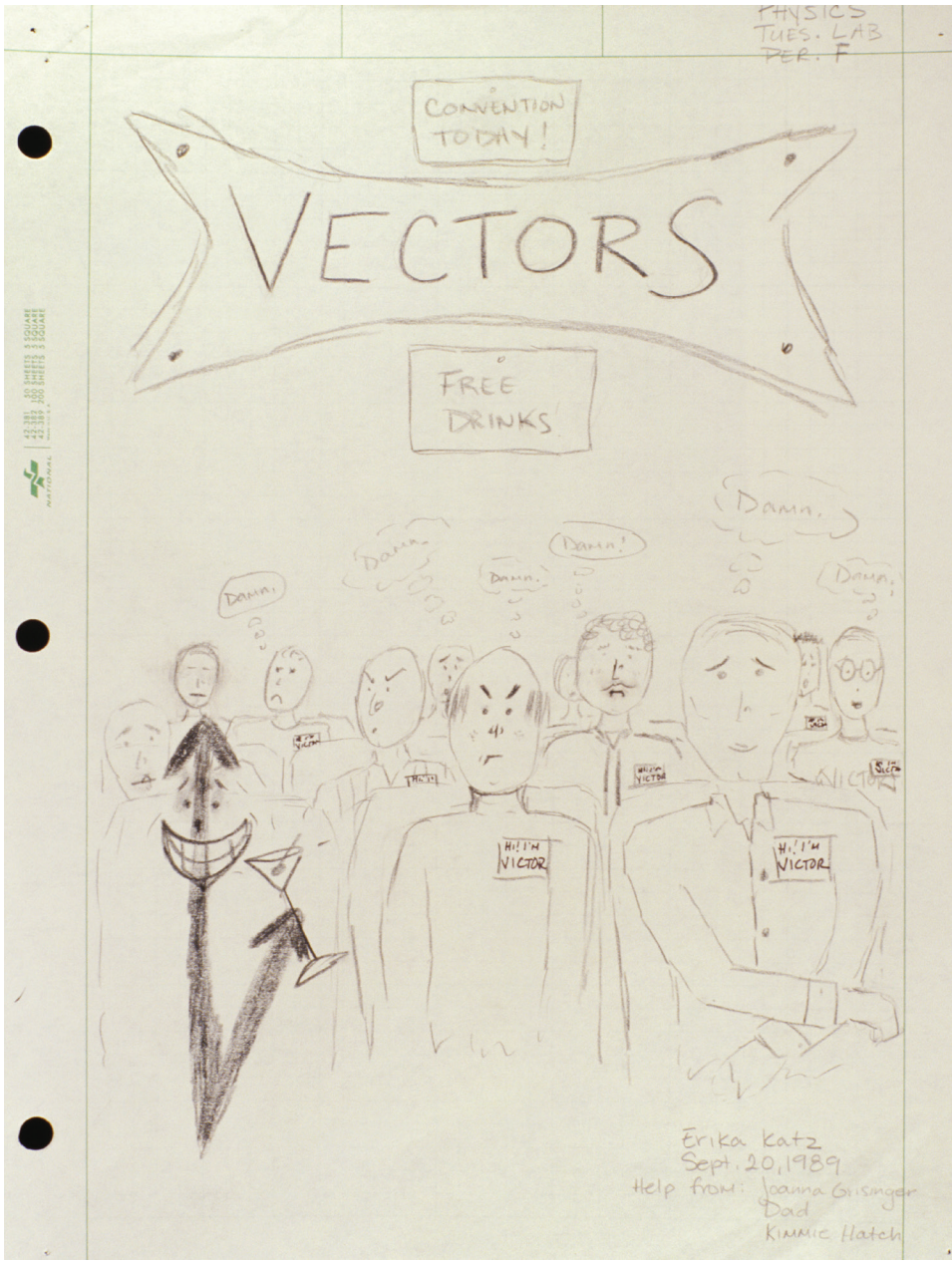
Coulomb's Law lab



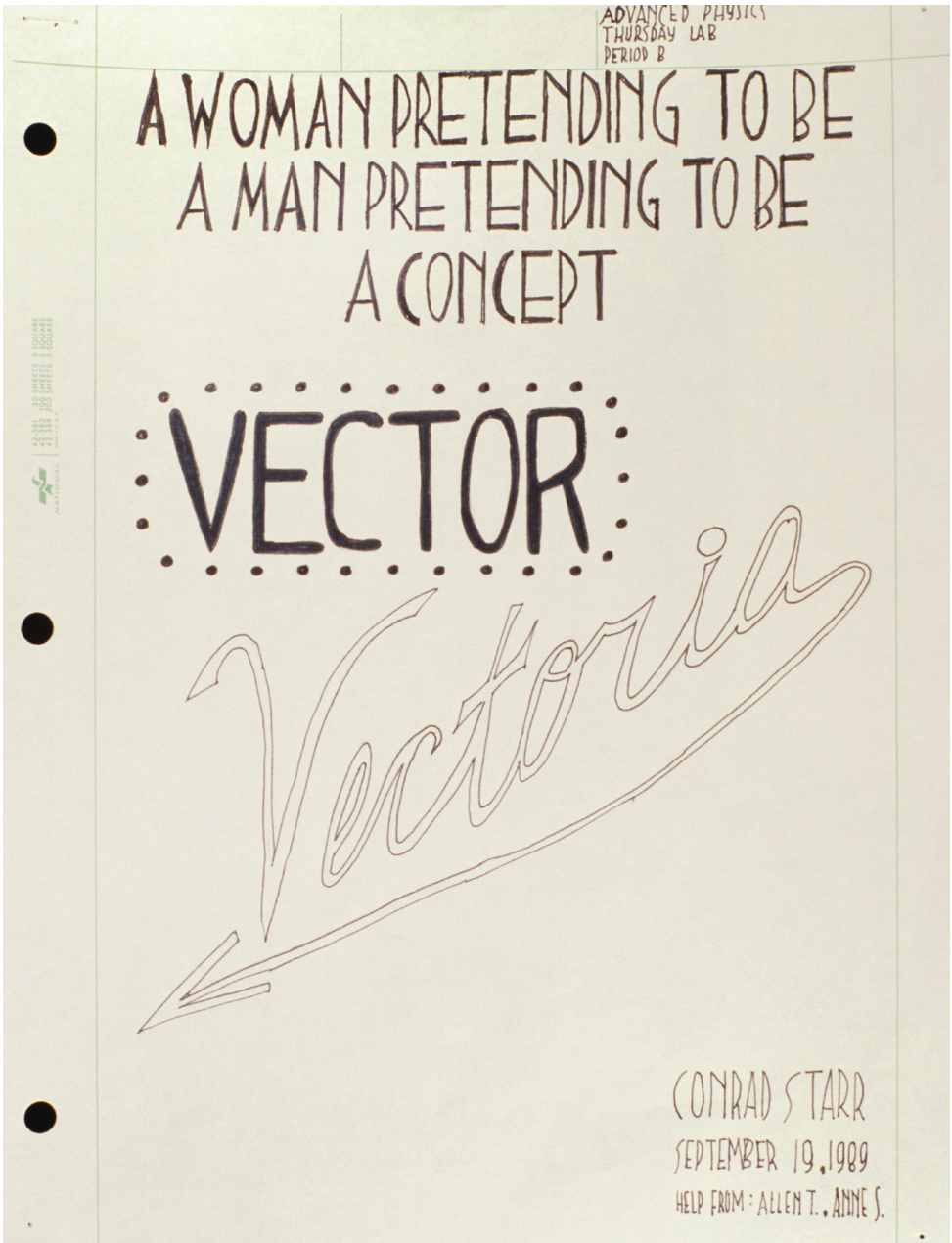
Acceleration lab slide (and Damian's face freefalling)

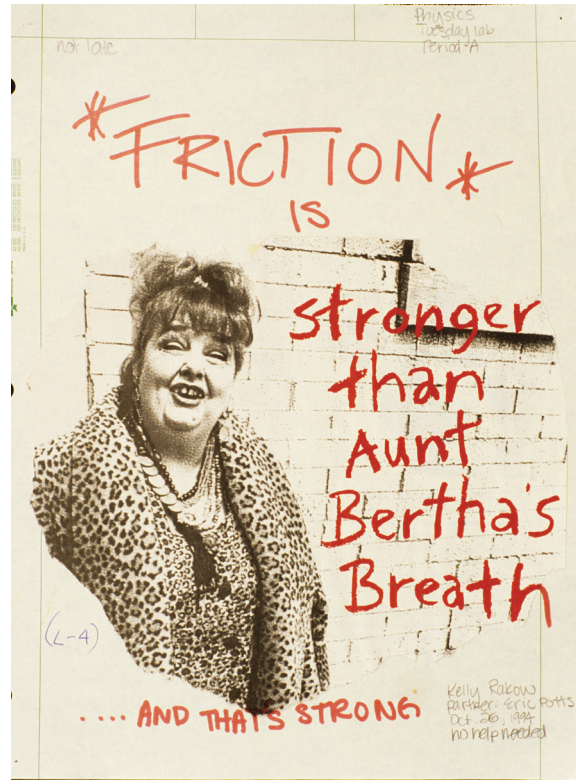


Vectors lab slide (notice that only Vectors, not Victors, get free drinks)

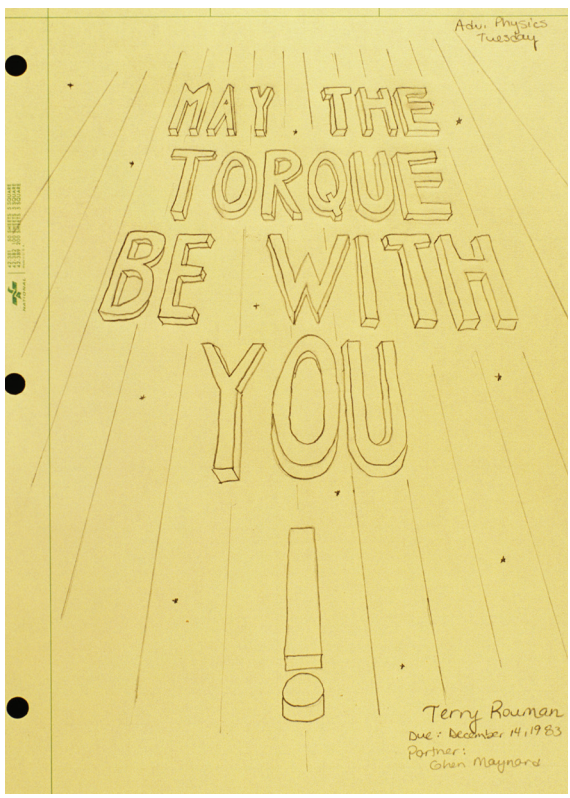


Vectors lab slide



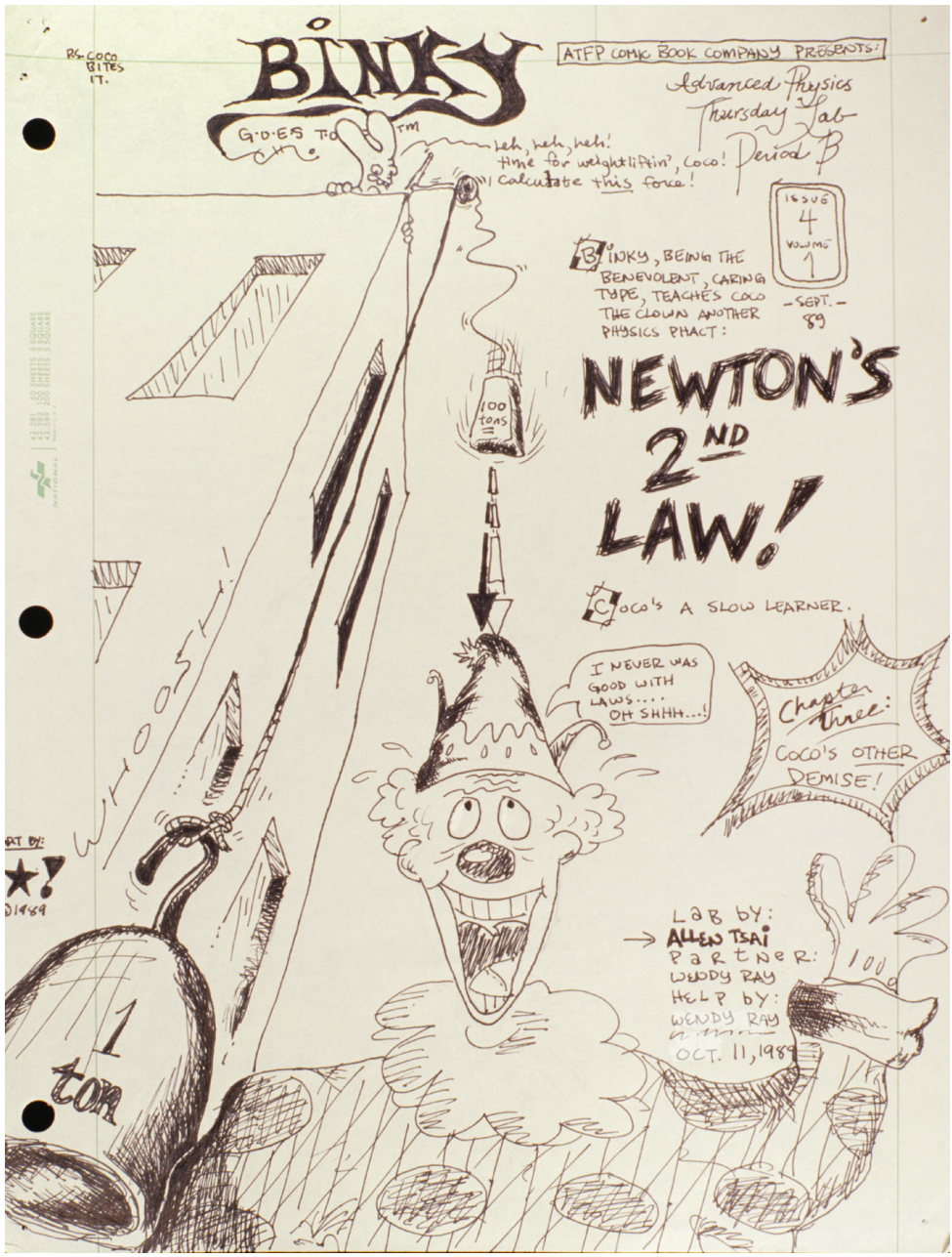


Friction lab slide



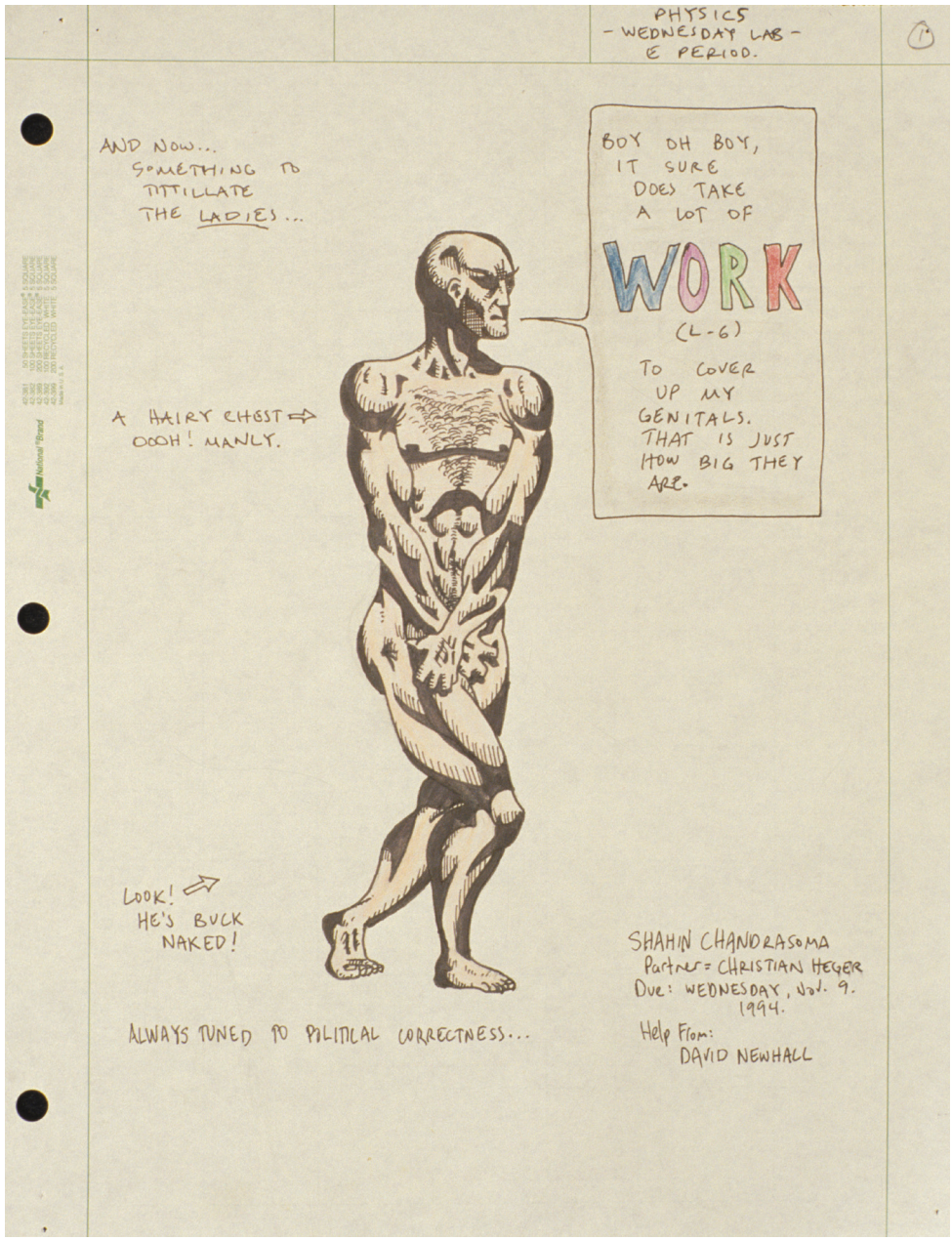
Torque lab slide

Newtons' Second Law lab slide (and Binky's revenge)



Ohm's Law lab slide

Work lab slide



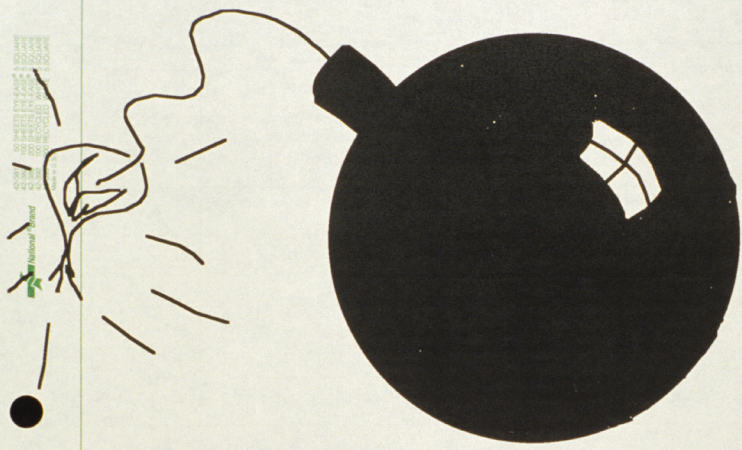
Kinematics lab slide

NOT LATE

Ad.Phys. Thurs lab

period B

Physics Death

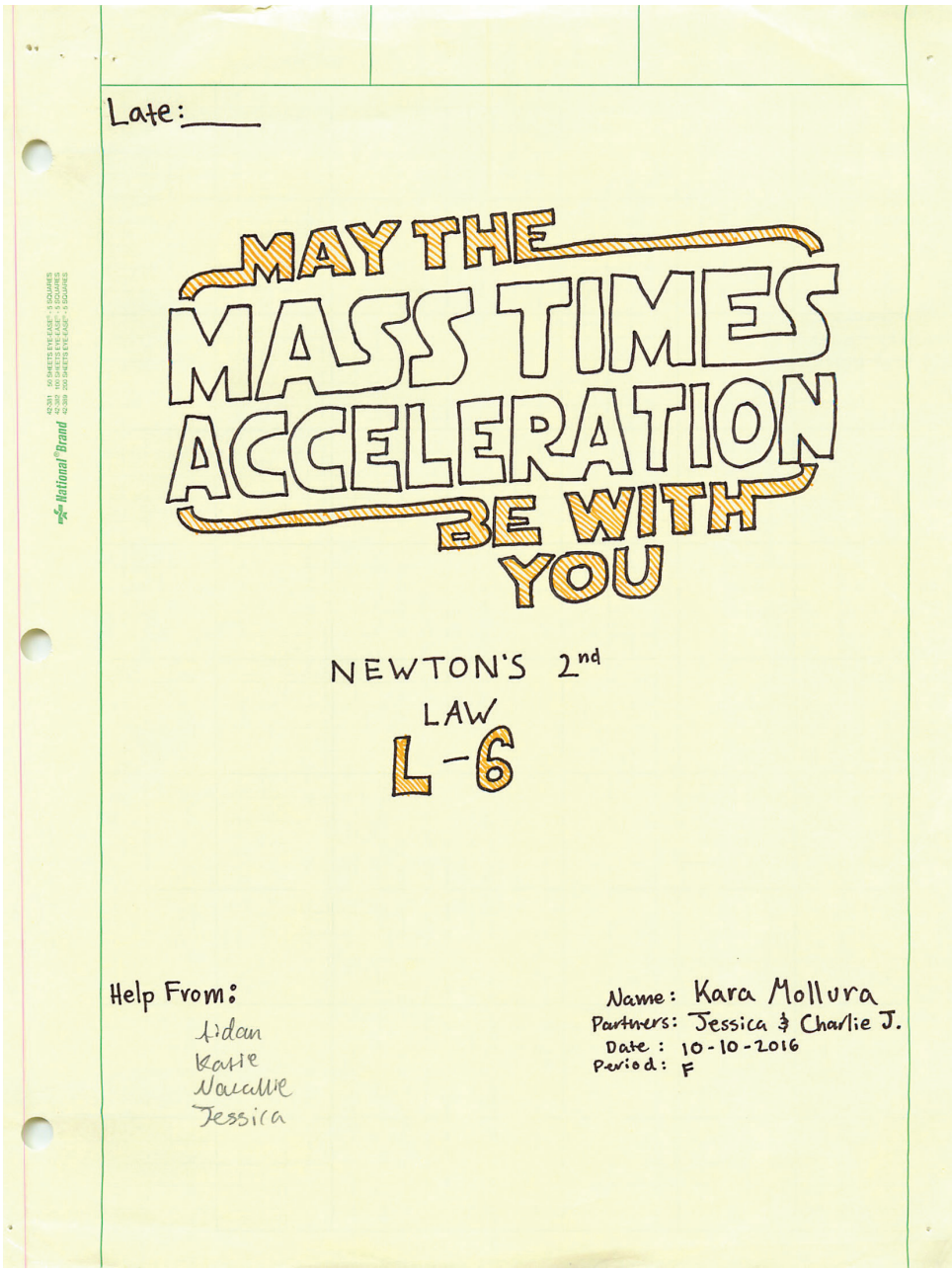


At Least in Chem Lab we got to burn Stuff.

Kinematics
(L-2)

The Computer Generated Bomb.

Stephen Liset
Pardner: Dave Fauvre
October, 5, 1993
Help From: Dave "The Guy Who Helped me" Fauvre, Cameron "he helped too" Murphy, and Damien "The other guy who helped" Scott.



Late: ____

MAY THE MASS TIMES ACCELERATION BE WITH YOU

NEWTON'S 2nd LAW

L-6

Help From:
Aidan
Katie
Natalie
Jessica

Name: Kara Mollura
Partners: Jessica & Charlie J.
Date: 10-10-2016
Period: F

Chapter 41

Lab Covers—Part 2

Original Note: I just can't seem to help myself. Because I realized one chapter wasn't going to be enough, I decided to split things into two chapters . . . except now it is four chapters, so enjoy.

Also, in the original copy, there was a lab cover below. It is/was kind of a special cover for an odd reason, so I'm giving it its own page. Why special? Jim Parkman was an English teacher at Poly when I first arrived. He and I became good friends. A few years into my tenure, we decided to hike through the back country of Yosemite from Twin Lakes down to Tuolumne Meadows. Steve Cuna was a biology teacher at the school at the time. He worked during the summer in Yosemite as a Park Ranger. After Jim and I arrived at the park, Steve helped us get our back-country permits, then drove us up to the trailhead. Only problem was that a private vendor had opened a commercial campground between the trailhead and the road, which meant we had to drive through that campground to get to the start of the trail. When we arrived, Steve drove through the entrance, waved at the guy in the kiosk and just kept going when the guy shouted for him to stop. We made it to the trailhead, got our packs out of his truck and had just put them on when the guy came roaring up in his truck armed with a rifle. Demanding that we stop and go back to the kiosk with him, Steve pointed out that it was illegal to block access to public lands, that he (Steve) was a ranger, then turned to us and said "get going," which we did. We found out later that there was a huge kerfuffle about the whole thing with the guy almost being arrested for pulling the stunt with the rifle (Steve didn't have his hat or credentials, so the guy didn't think he really was a Ranger). In any case, that was the beginning of the trip. Once we got moving, it took three days of hiking. We passed by beautiful lakes, through areas of snow, and I had the thrill of sleeping in a tube tent (a long, open, cylindrical piece of plastic strung by rope between trees) in a raging rainstorm. It was great fun.

I'm telling you about this because a few years later, Jim fell in love and married a woman teacher at Chadwick School, moved there and lived happily ever after. For his wedding, the couple asked attendees to bring a one-foot square pieces of embroidered quilt as a gift. I hand embroidered my piece. It was of the wabbit you see on the following page.

Friday lab-A period

Centripetal Force

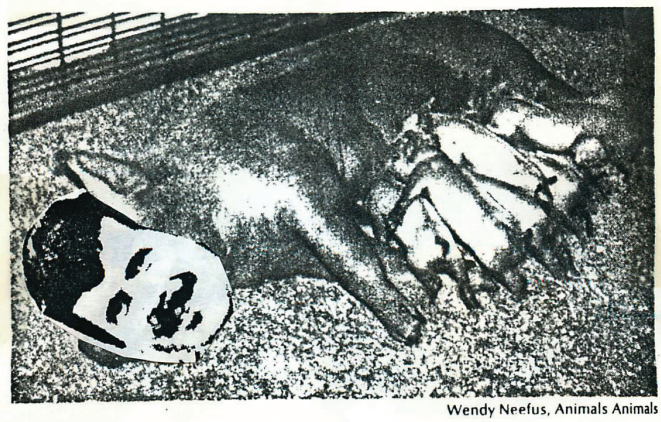
Christopher Winfield
November 9, 1988
Lab Partners: Reies Montes
Help by: Ferdie Arcinue
Reies Montes
Carter Judy

DAYS LATE : 0

ADVANCED PHYSICS
C PERIOD
FRIDAY LAB

TORQUE

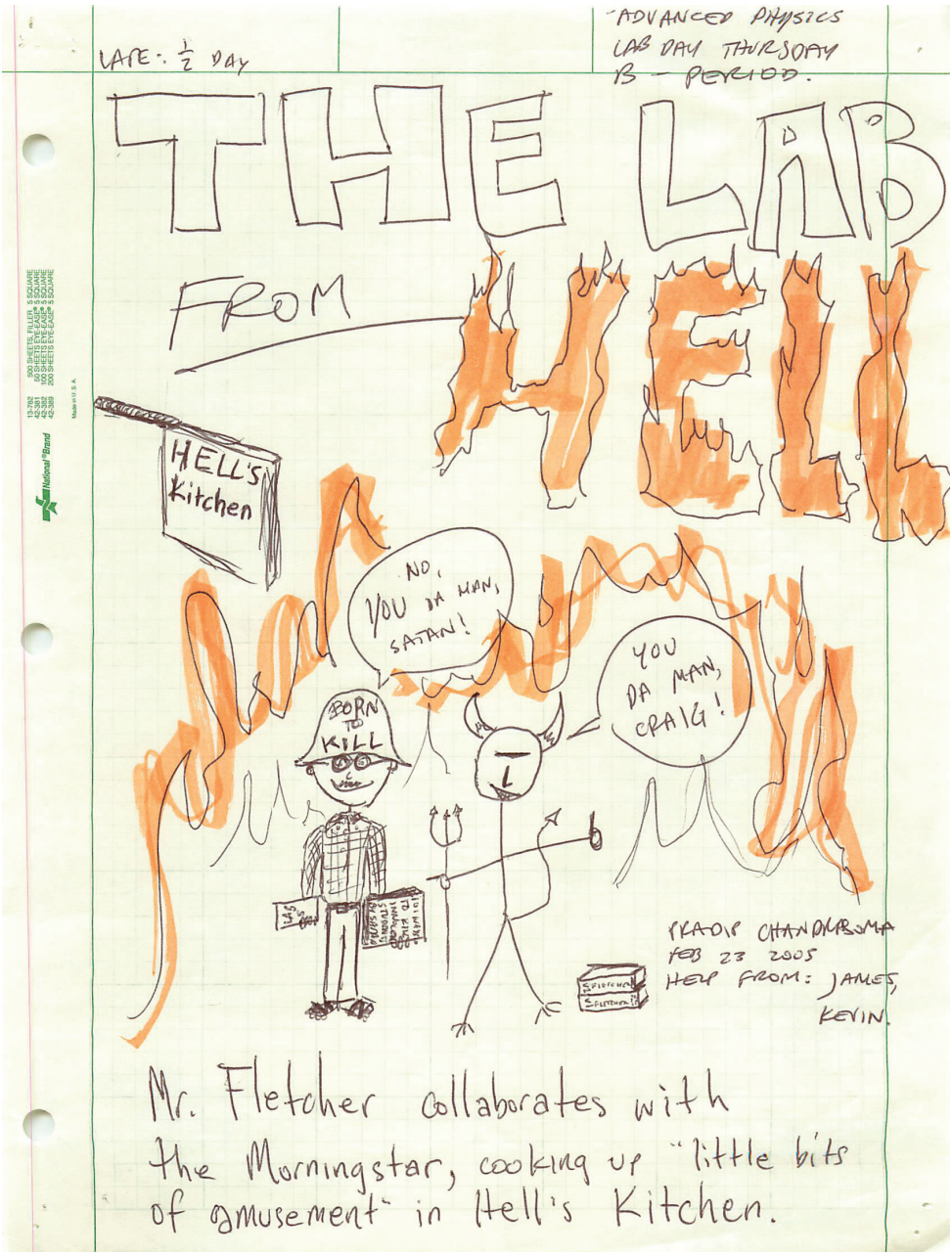
(L-10)



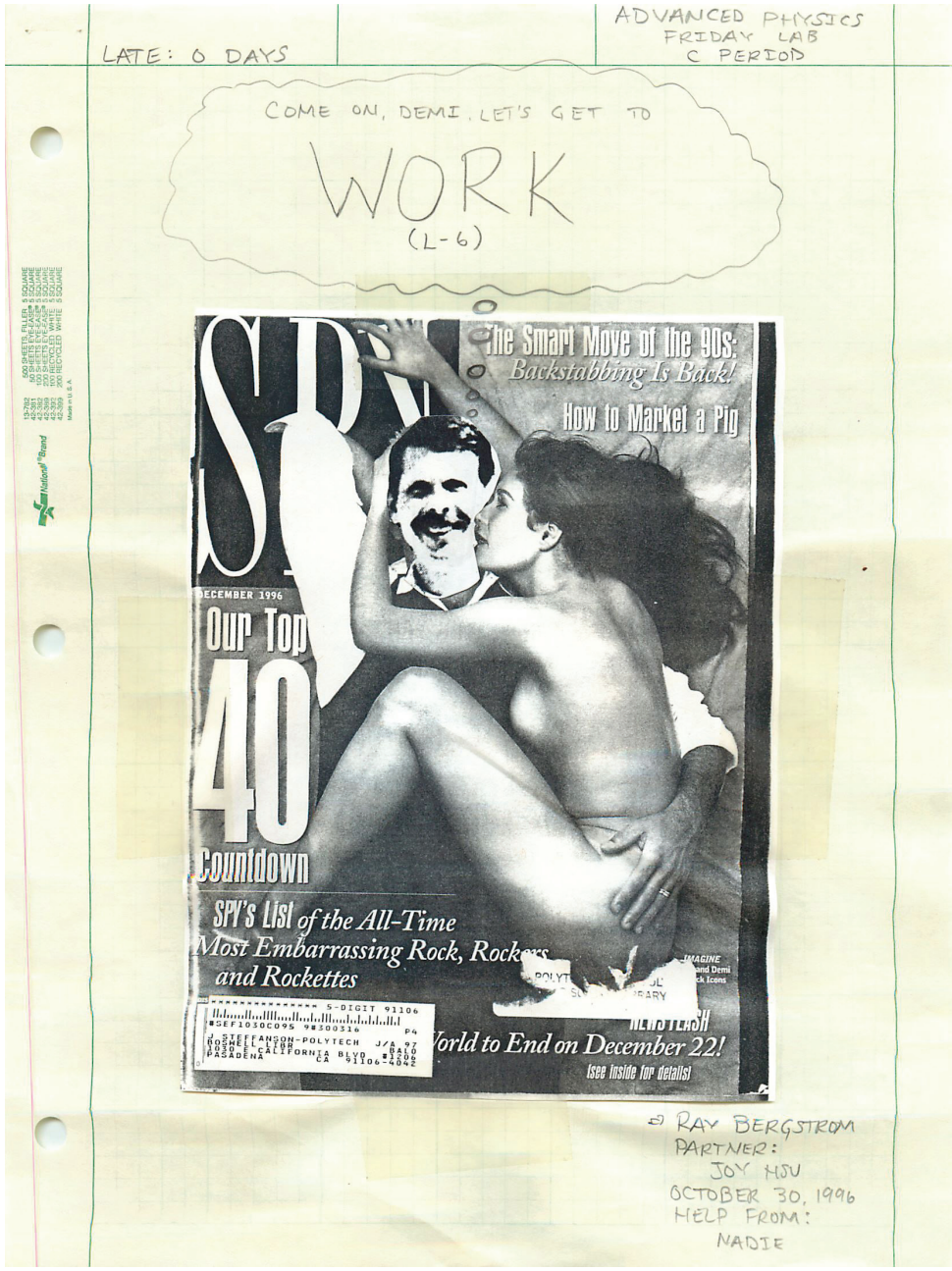
Wendy Neefus, Animals Animals

Hogs are a major source of income for many farmers in the United States, especially in the Corn Belt of the Midwest. The photo above shows a Yorkshire sow nursing her pigs.

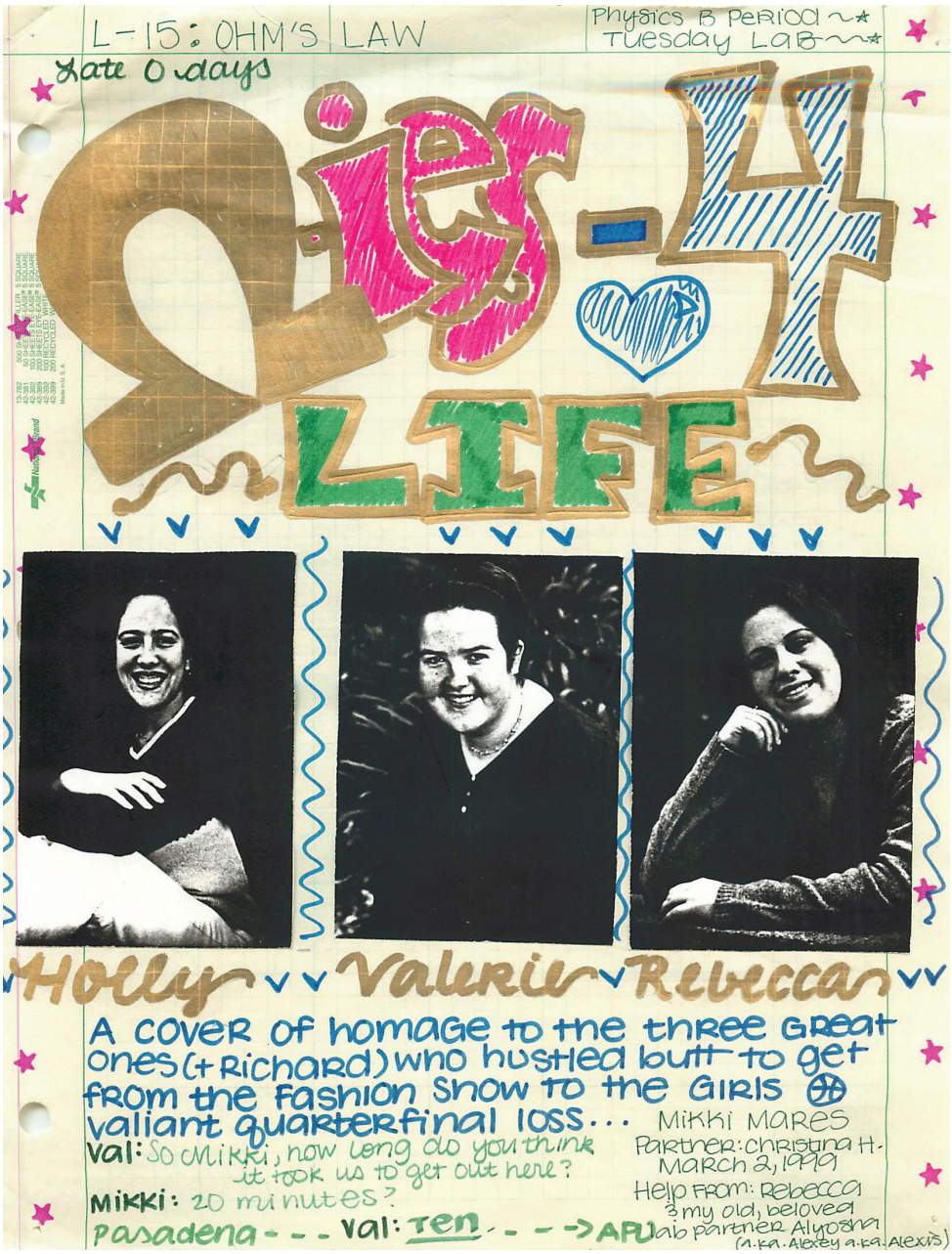
=> RAY BERGSTROM
PARTNER:
SETH YOHALEM
ETC.
12/11/96
HELP FROM:
LAWRENCE HWANG


LATE: ½ DAY
ADVANCED PHYSICS LAB DAY THURSDAY B - PERIOD.
THE LAB FROM HELL
HELL'S Kitchen
NO, YOU DA MAN, SATAN!
YOU DA MAN, CRAIG!
BORN TO KILL
RAJIV CHANDRASEKA FEB 23 2005 HELP FROM: JAMES, KEVIN
Mr. Fletcher collaborates with the Morningstar, cooking up "little bits of amusement" in Hell's Kitchen.

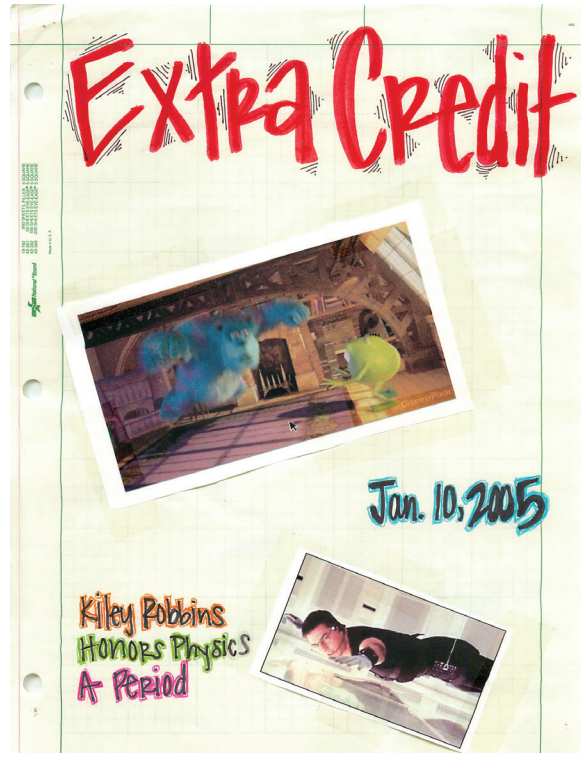
Work Lab (before the *family values* policy)

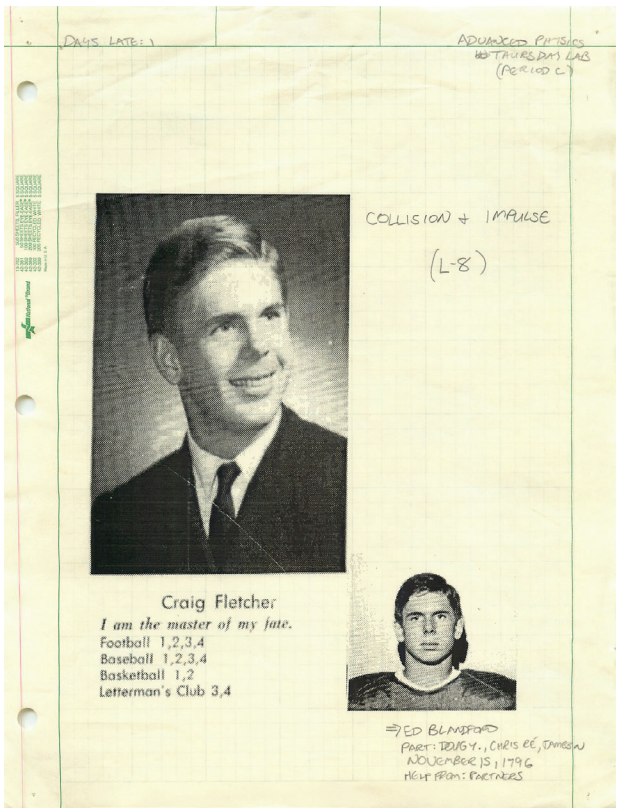


Ohm's Law Lab

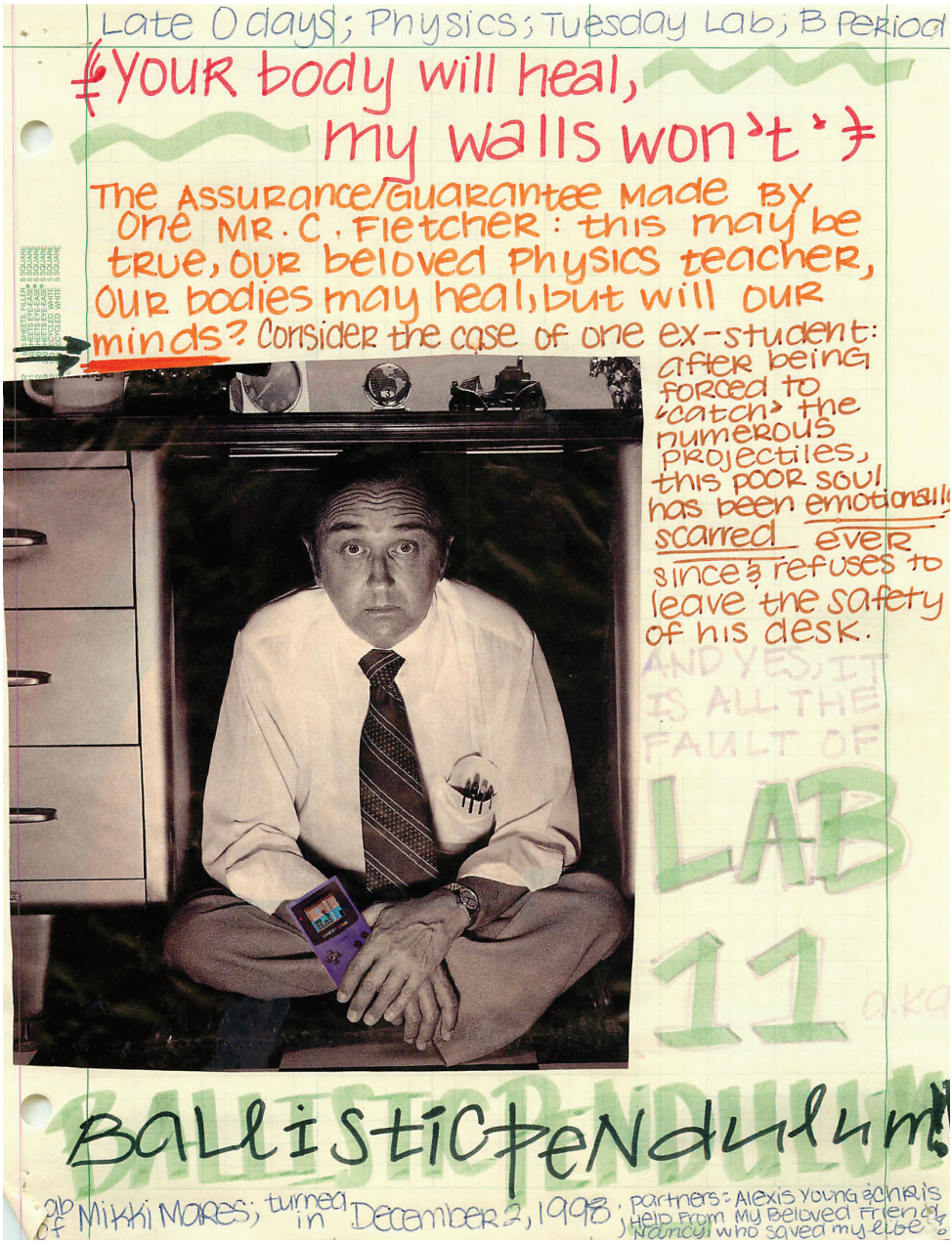

L-15: OHM'S LAW
Physics B Period ~★
Tuesday LAB ~~★
Late 0 days
LIFE
Holly
Valerie
Rebecca
A cover of homage to the three great ones (+ Richard) who hustled butt to get from the fashion show to the girls ☮ valiant quarterfinal loss...
Mikki Mares
Partner: Christina H.
March 2, 1999
Help from: Rebecca
& my old, beloved lab partner Alyosha (a.k.a. Alexey a.k.a. Alexis)
Val: So Mikki, how long do you think it took us to get out here?
Mikki: 20 minutes?
Pasadena - - - Val: ten - - - -> APU

Extra Credit

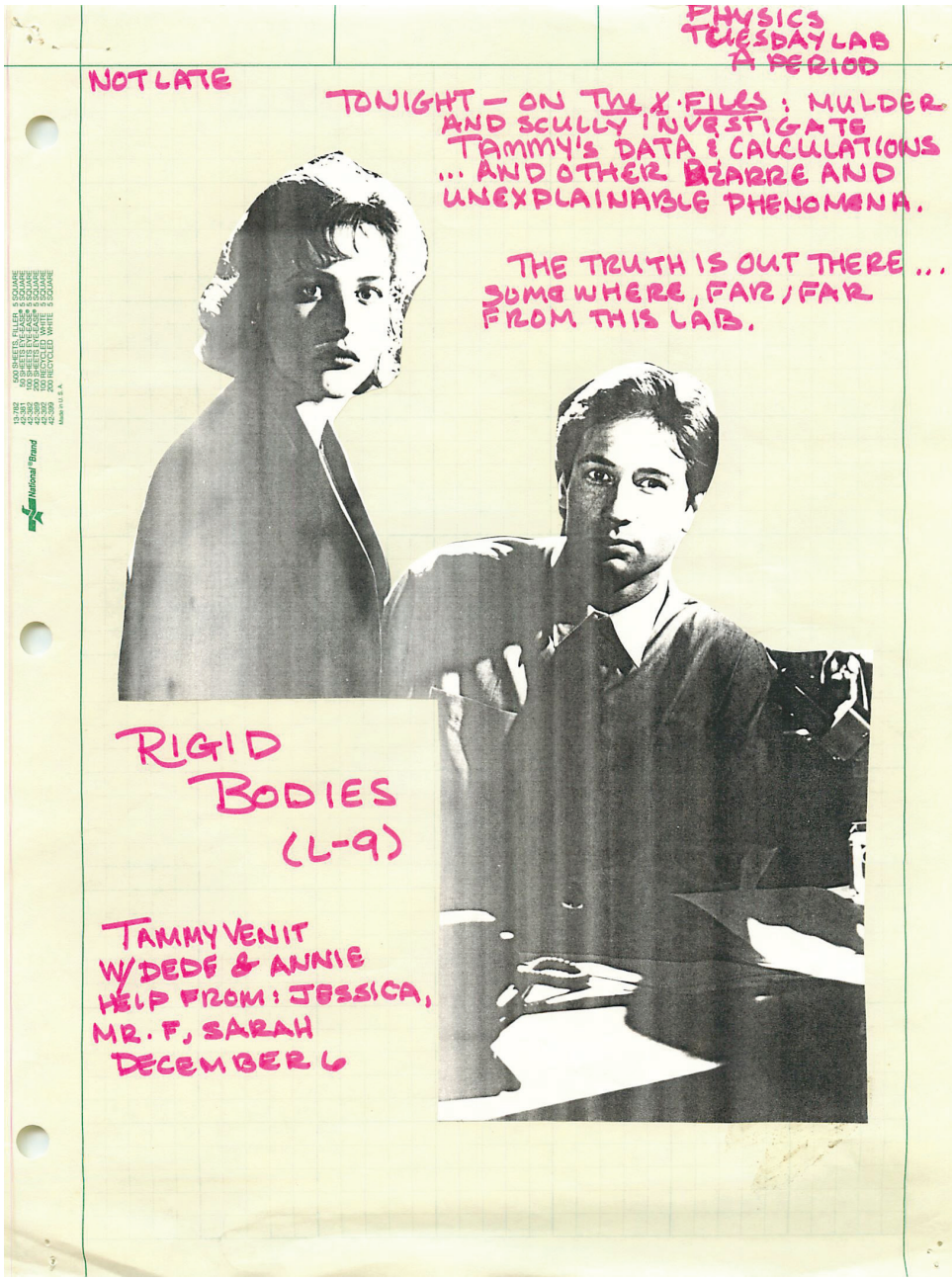




Impulse Lab (note how friendly I look in the football photo)


Late 0 days; Physics; Tuesday Lab; B Period
your body will heal,
my walls won't
The assurance/guarantee made by one Mr. C. Fletcher: this may be true, our beloved physics teacher, our bodies may heal, but will our minds? Consider the case of one ex-student: after being forced to 'catch' the numerous projectiles, this poor soul has been emotionally scarred ever since, refuses to leave the safety of his desk.
AND YES, IT IS ALL THE FAULT OF LAB 11 a.k.a
BALLISTIC PENDULUM
BALLISTIC PENDULUM!
2nd of Mikki Moores; turned in December 2, 1993; partners: Alexis Young & Chris Is Help From My Beloved Friend Nancy who saved my elbow

Rigid Bodies Lab

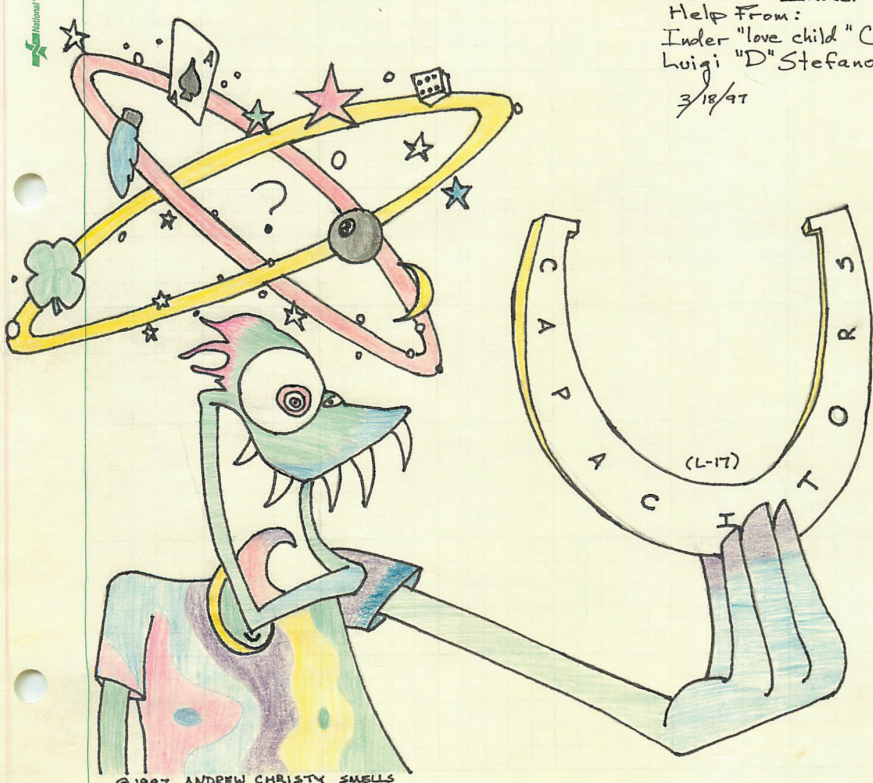


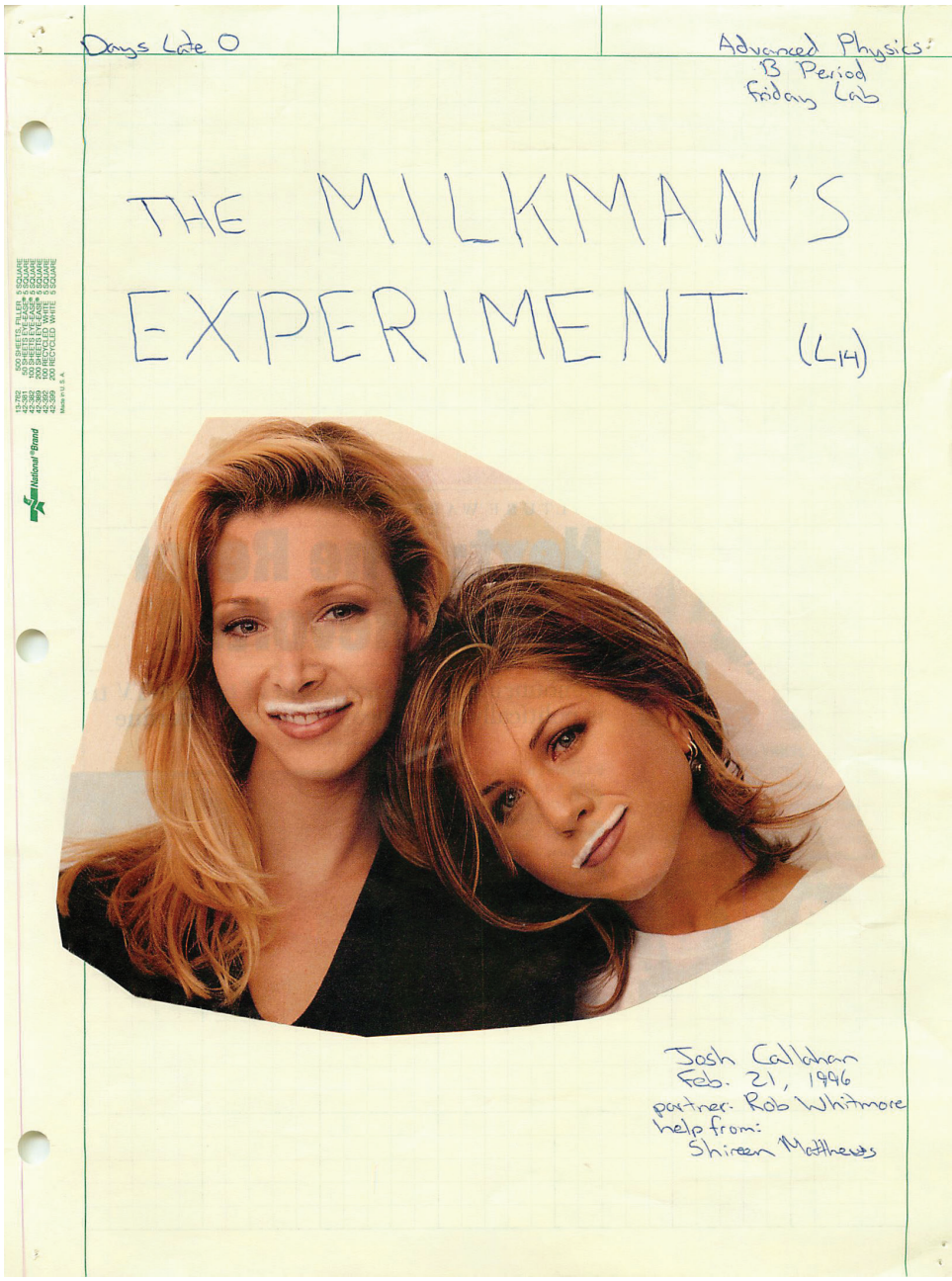
Physics
Wed Lab
Per. A

Special ThanX to:

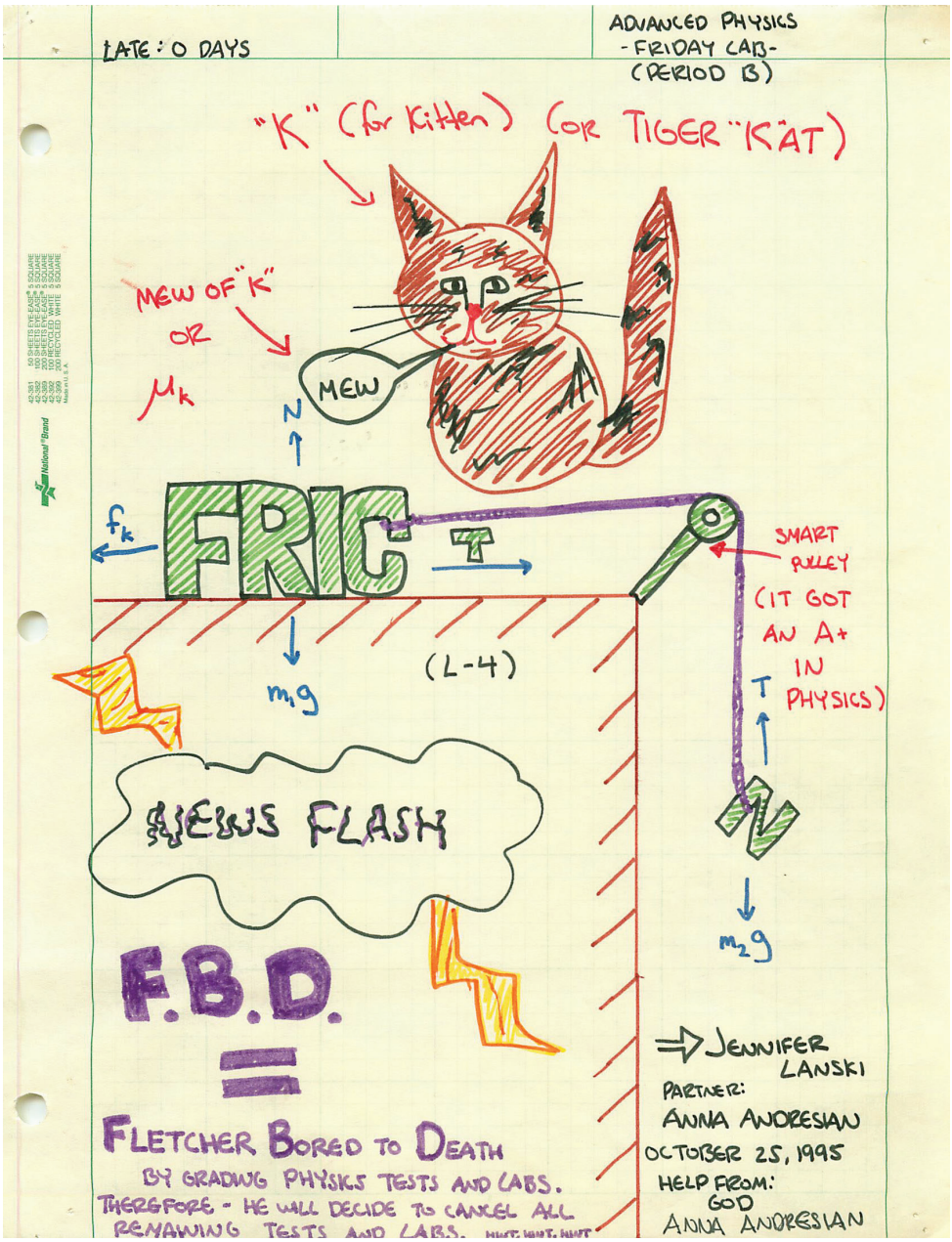
BiLL W & dr. bob, FaiNche MaC CaRthy, MoM anD DaD FeLdmaNn, GeOFf ZaneLli, SlaMm, JiLl RoIe, StEve GeIGer, NicOle WiLLiamS, NatHan anD TRish DeCemBer, Mom anD DaD PfeIffer (brOthers anD sIsterS), MamA and PapA WiLLiAms, TerrI and tHe GeRard faMilY, ScotT PaTterSon, DonNy CamPioN, MarGarEt FeLdmAnN, MoM, DaD, JoaNnA, KellI, and DANIEL JAMES PAULSON (R.I.P.)

→Chris Ward
Partner: Inder "G" Conar
Help From:
Inder "love child" Conar
Luigi "D" Stefano
3/18/97

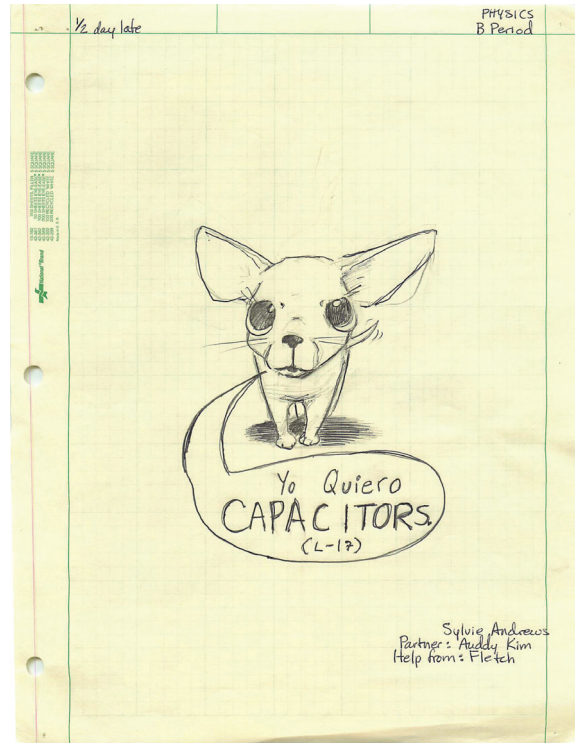


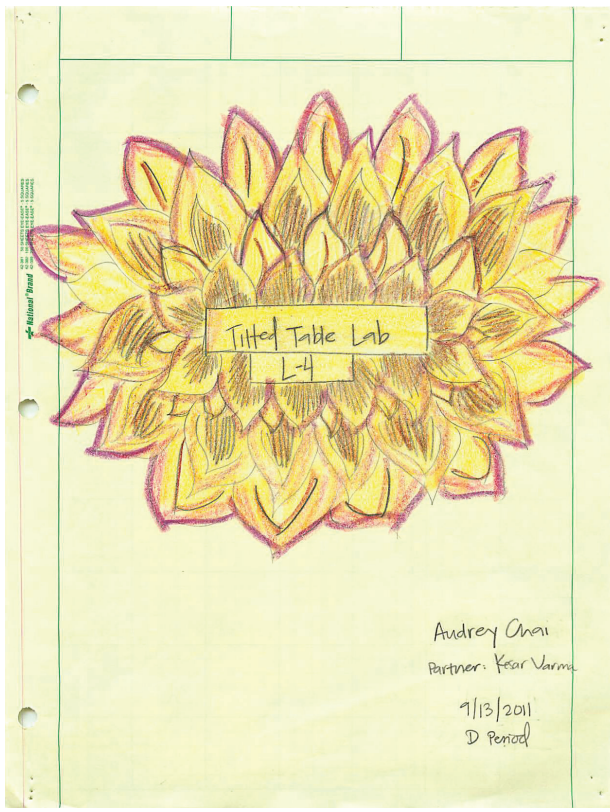

Days Late 0
Advanced Physics
B Period
Friday Lab
THE MILKMAN'S EXPERIMENT (L14)
Josh Callahan
Feb. 21, 1996
partner. Rob Whitmore
help from:
Shireen Matthews

Friction Lab

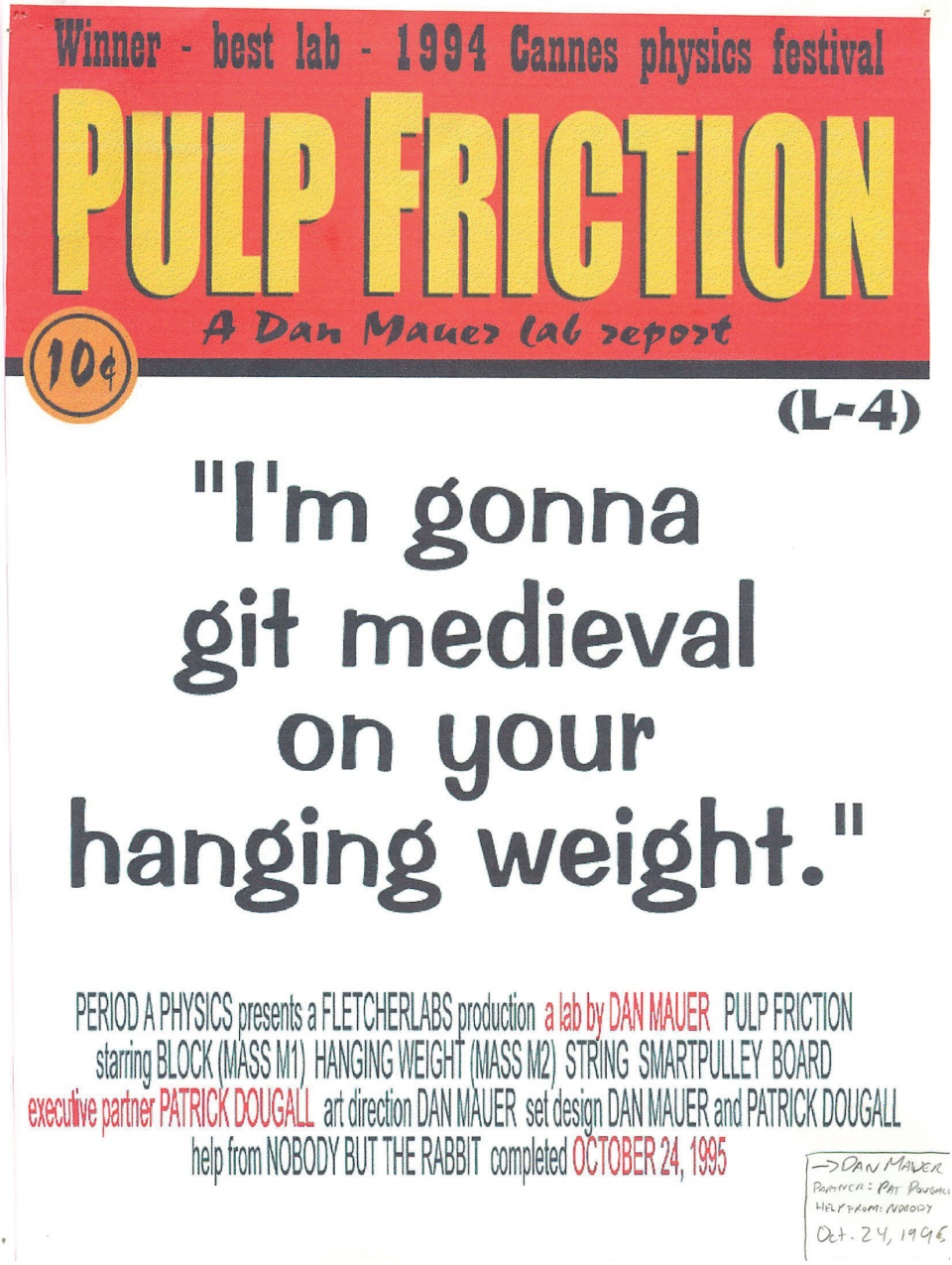


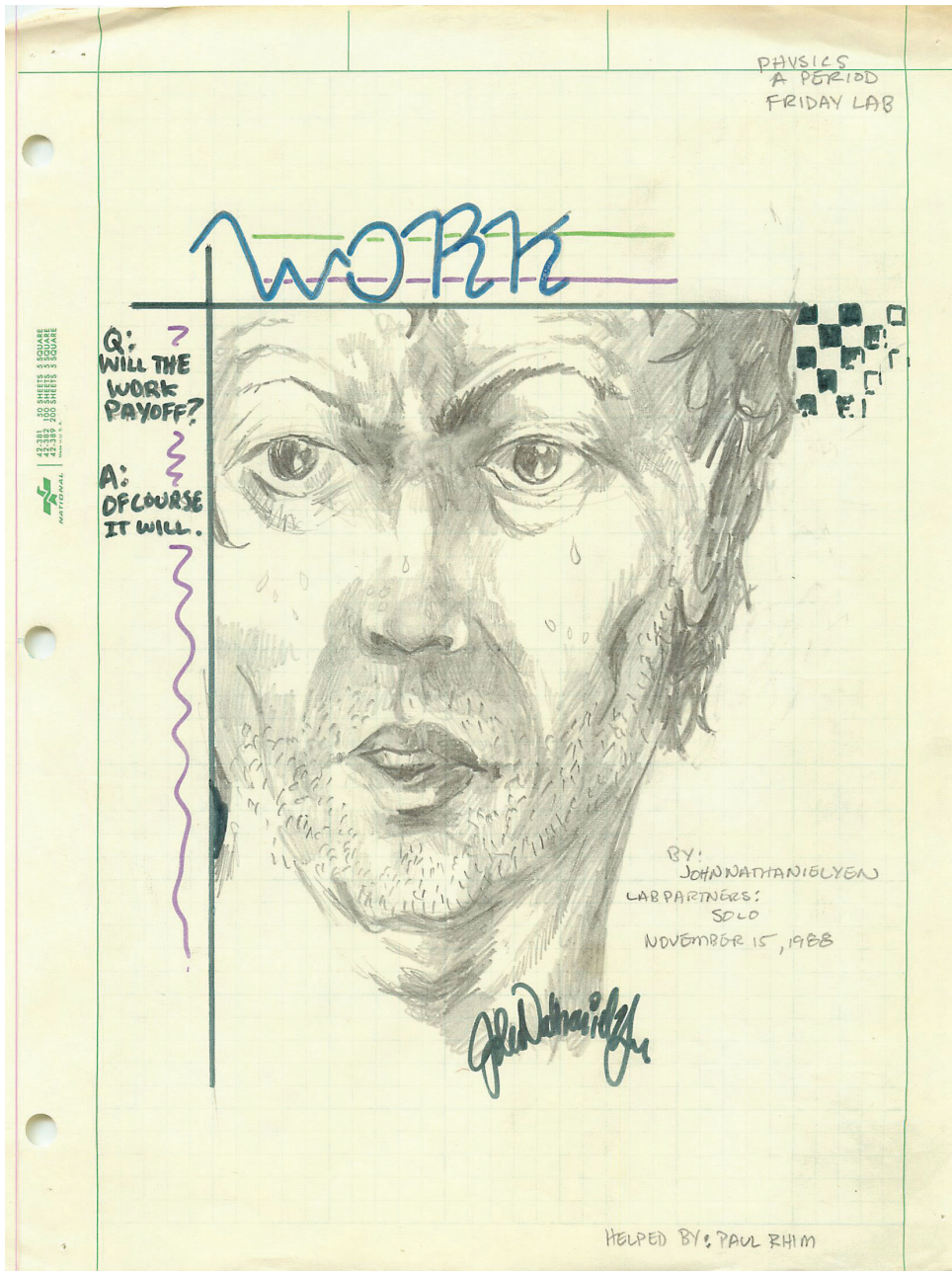
Capacitors Lab



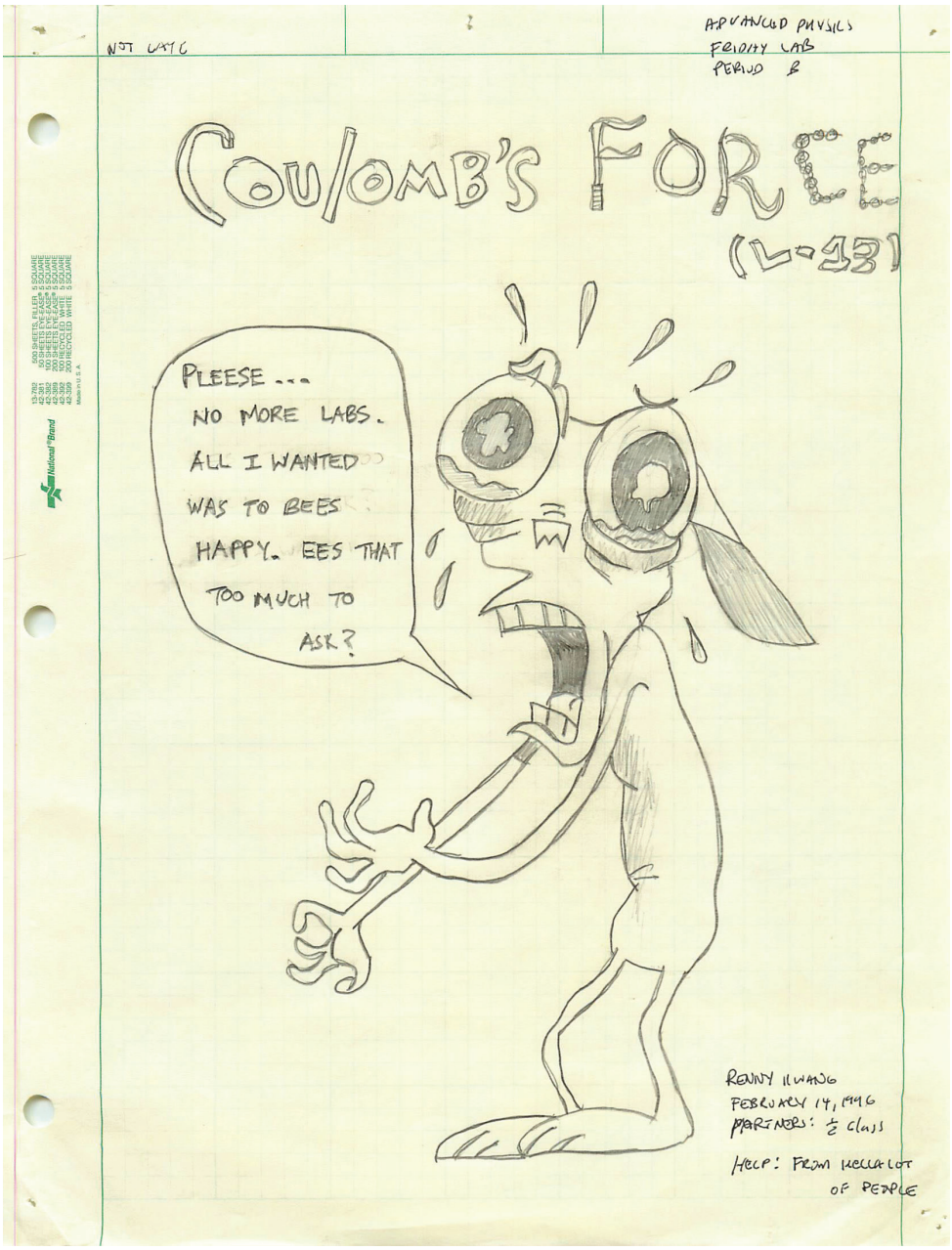


Tilted Table Lab


Winner - best lab - 1994 Cannes physics festival
PULP FRICTION
A Dan Mauer lab report
10¢
(L-4)
"I'm gonna git medieval on your hanging weight."
PERIOD A PHYSICS presents a FLETCHERLABS production a lab by DAN MAUER PULP FRICTION
starring BLOCK (MASS M1) HANGING WEIGHT (MASS M2) STRING SMARTPULLEY BOARD
executive partner PATRICK DOUGALL art direction DAN MAUER set design DAN MAUER and PATRICK DOUGALL
help from NOBODY BUT THE RABBIT completed OCTOBER 24, 1995
—>DAN MAUER
PARTNER: PAT DOUGALL
HELP FROM: NOBODY
Oct. 24, 1995

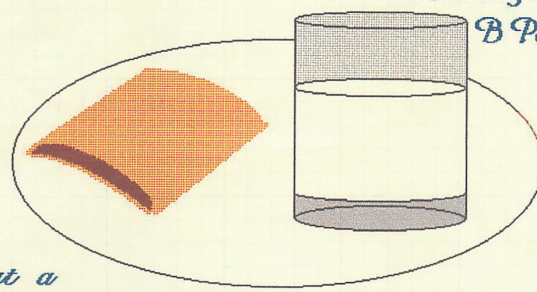

PHYSICS
A PERIOD
FRIDAY LAB
WORK
Q: WILL THE WORK PAYOFF?
A: OFCOURSE IT WILL.
BY: JOHNNATHANIELYEAN
LAB PARTNERS: SOLO
NOVEMBER 15, 1988
HELPED BY: PAUL RHIM

Coulomb's Law Lab



A Cookie is just a cookie . . .

AP Physics
Thursday Lab
B Period



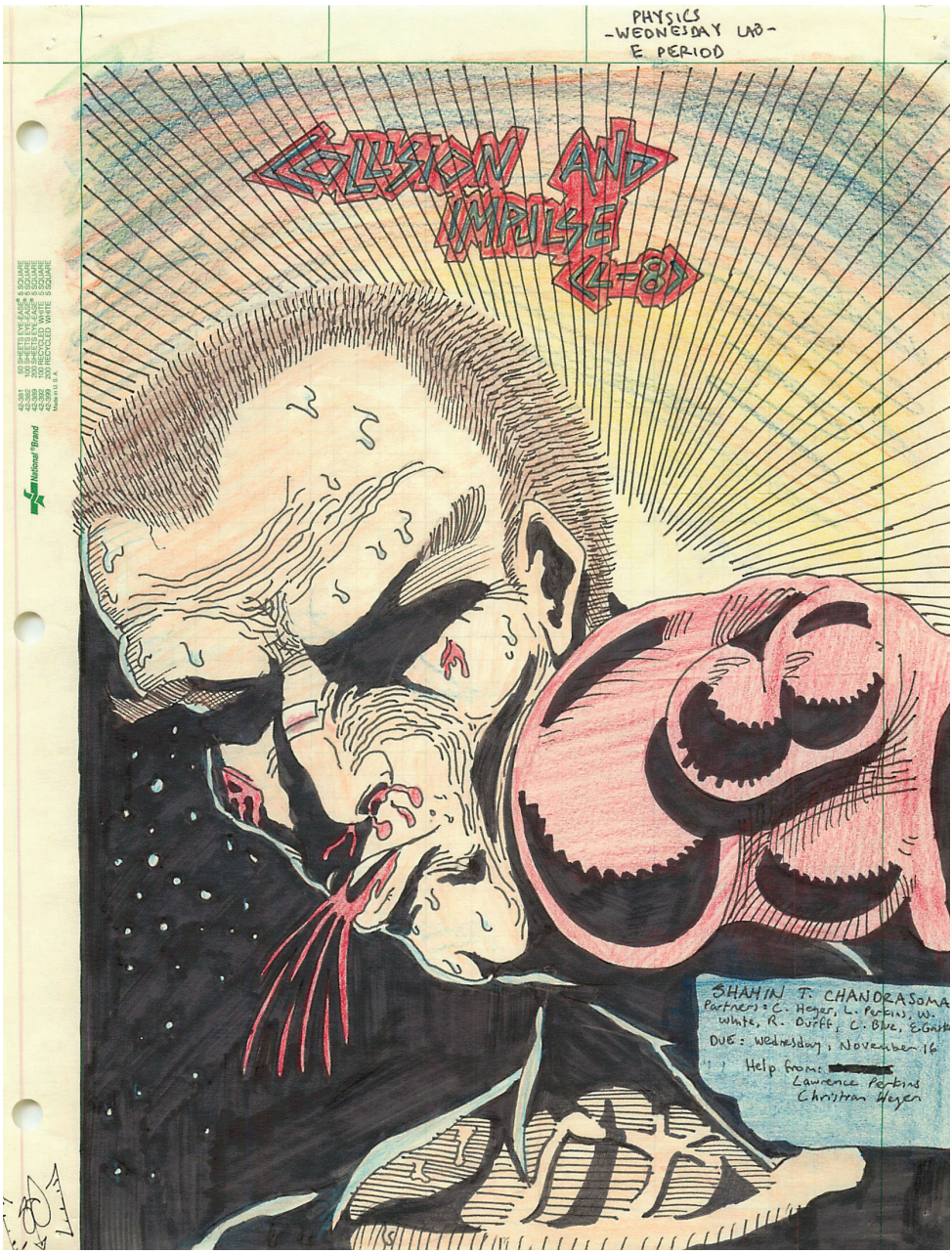
But a

NEWTON'S SECOND LAW

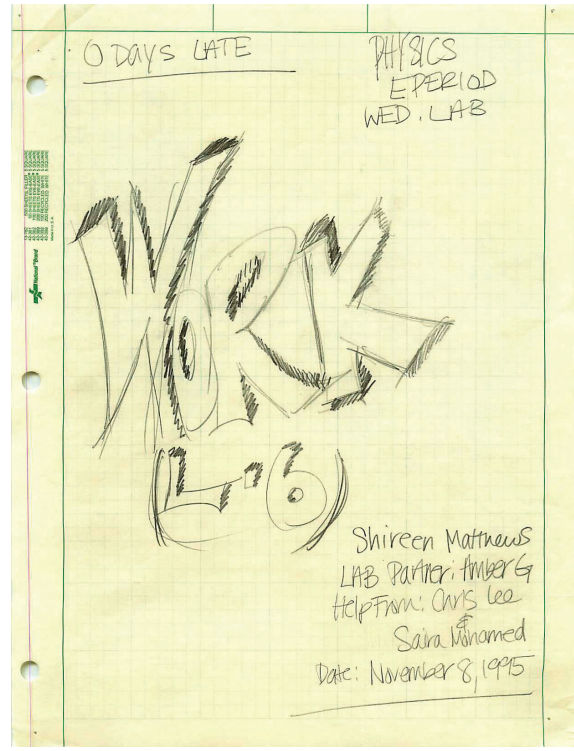
is fruit and cake. (Y-3)

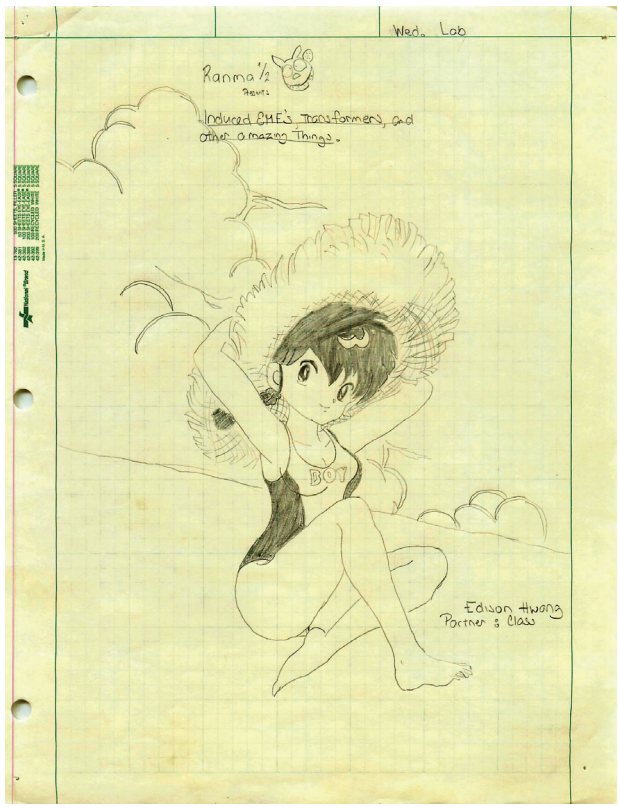
Caitlin Wheeler
Partner Jennifer Lanski
October 18, 1995
Help from: Tiffany Chang
Anna Andresian

Collision and Impulse Lab



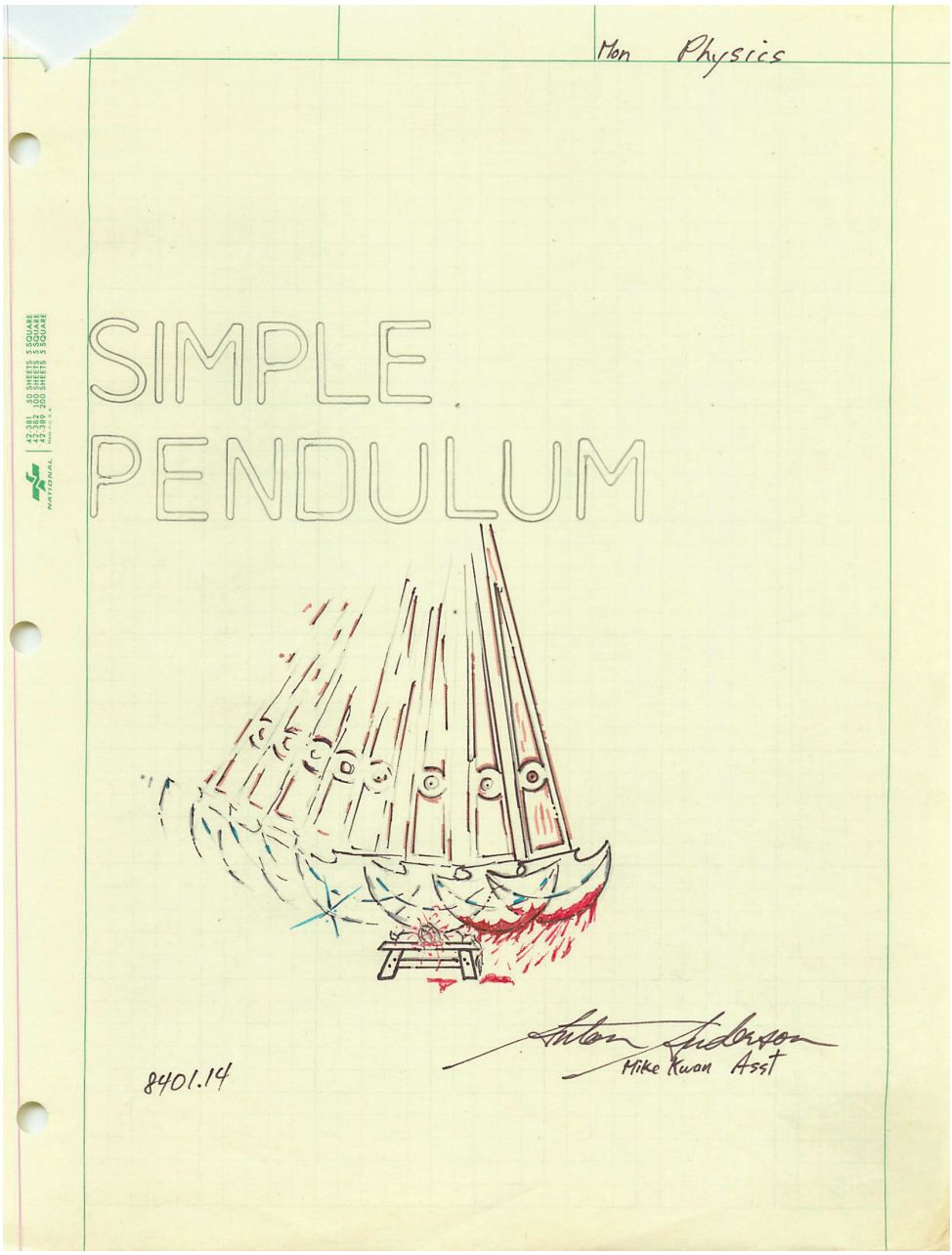
Work Lab

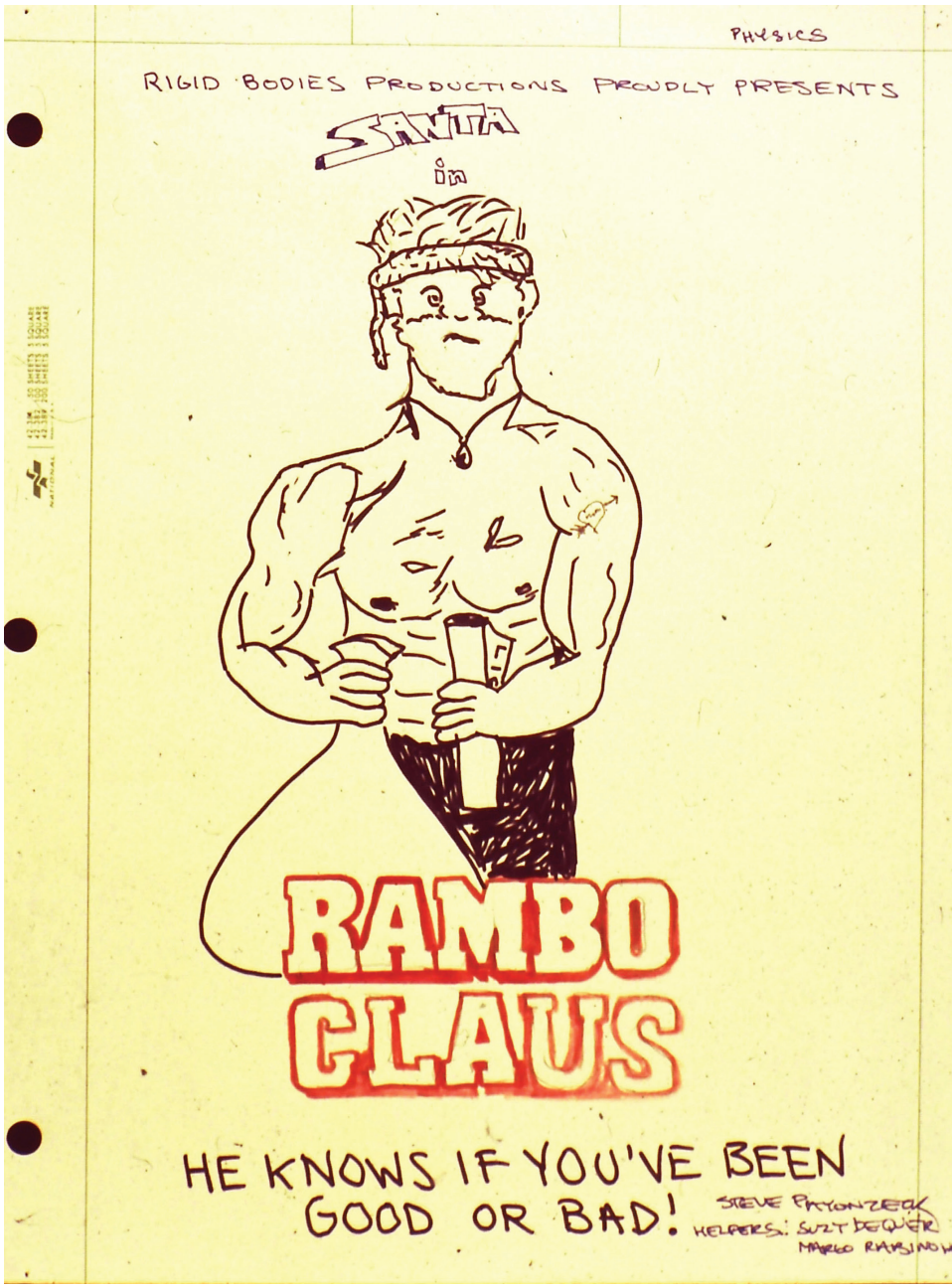


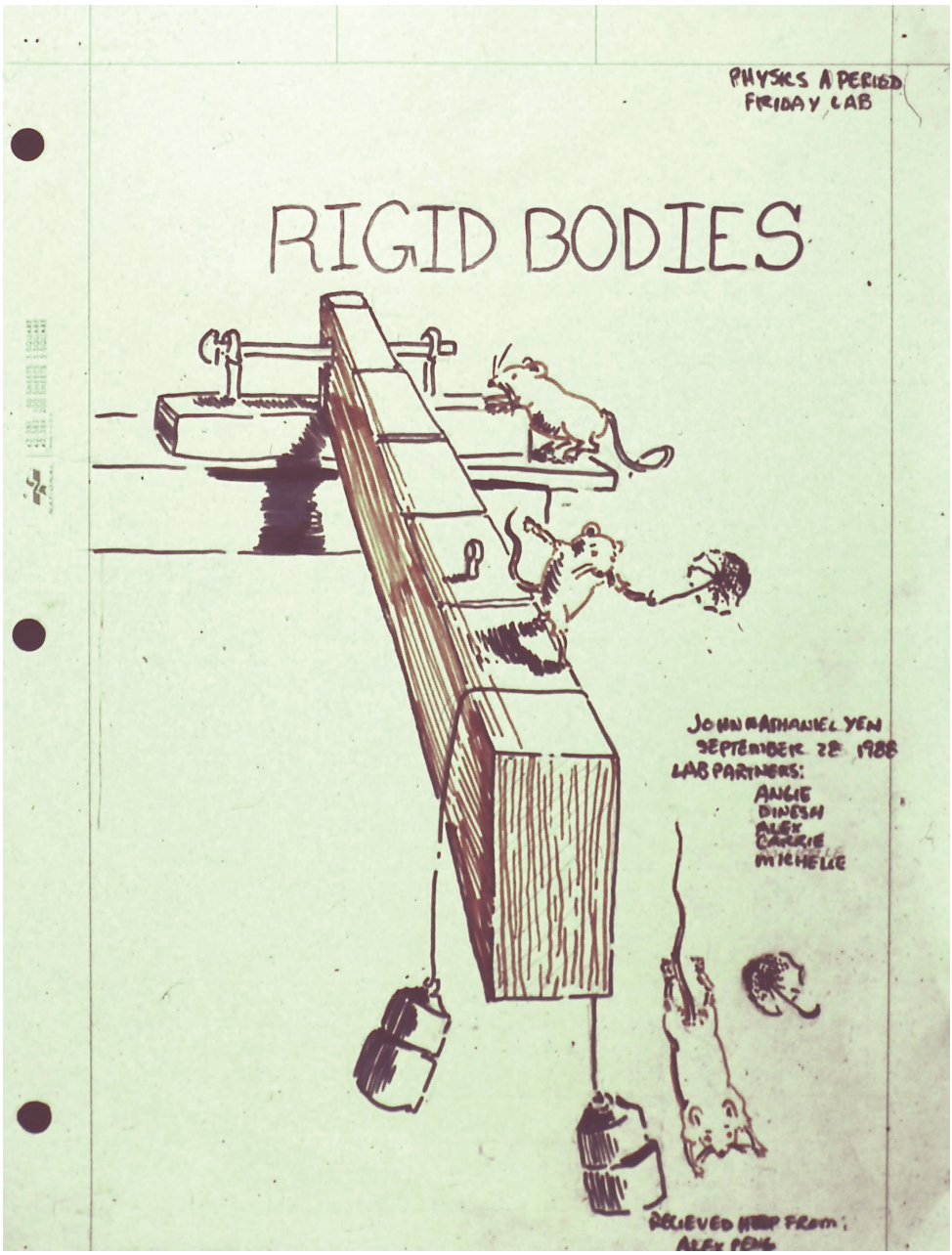


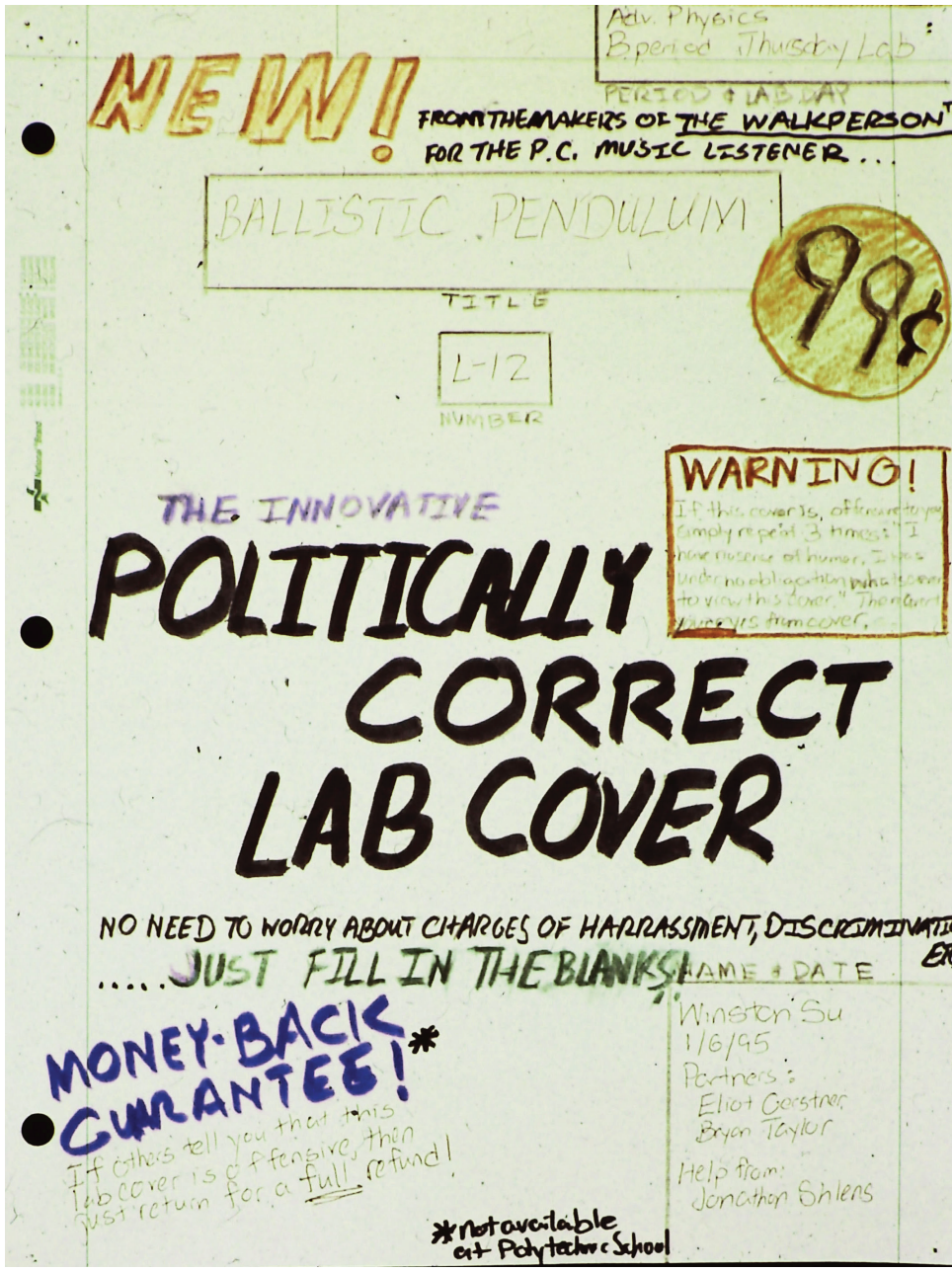
Induced EMFs Lab

Simple Pendulum Lab (and the first cover to ever use color)



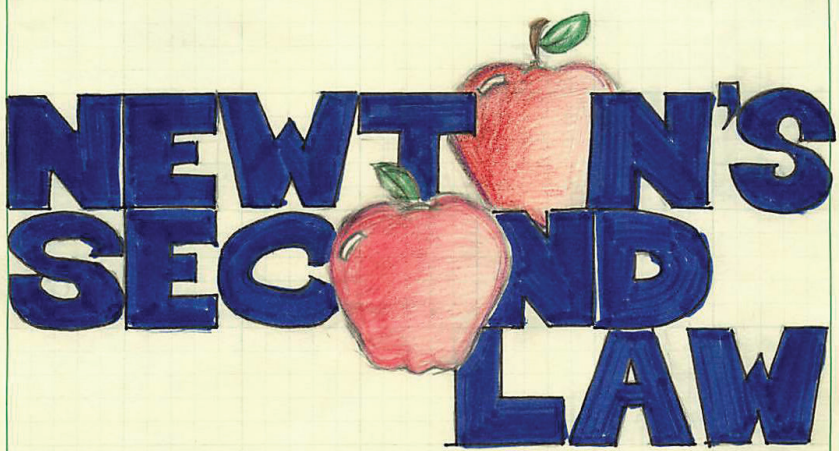

PHYSICS
RIGID BODIES PRODUCTIONS PROUDLY PRESENTS
SANTA
in
RAMBO
CLAUS
HE KNOWS IF YOU'VE BEEN
GOOD OR BAD!
STEVE PRYONZECK
HELPERS: SUZIT DEQUER
MARCO RAMSINDHI


PHYSICS A PERIOD
FRIDAY LAB
RIGID BODIES
JOHN NATHANIEL YEN
SEPTEMBER 28 1988
LAB PARTNERS:
ANGIE
DINESH
ALEX
CARRIE
MICHELLE
RELIEVED HELP FROM:
ALEX PENG


Adv. Physics
B period Thursday Lab
PERIOD + LAB DAY
NEW!
FROM THE MAKERS OF THE WALKPERSON™
FOR THE P.C. MUSIC LISTENER...
BALLISTIC PENDULUM
TITLE
99¢
L-12
NUMBER
WARNING!
If this cover is offensive to you simply repeat 3 times: "I have no sense of humor, I have no obligation to view this cover." Then turn away from cover.
THE INNOVATIVE
POLITICALLY CORRECT LAB COVER
NO NEED TO WORRY ABOUT CHARGES OF HARRASSMENT, DISCRIMINATION ETC
.....JUST FILL IN THE BLANKS!
NAME + DATE
Winston Su
1/6/95
Partners:
Eliot Gerstner
Bryan Taylor
Help from:
Jonathan Shiens
MONEY-BACK GUARANTEE!*
If others tell you that this lab cover is offensive, then just return for a full refund!
*not available at Polytechnic School

late: 0 days

Advanced Physics
-Friday Lab
(E period)

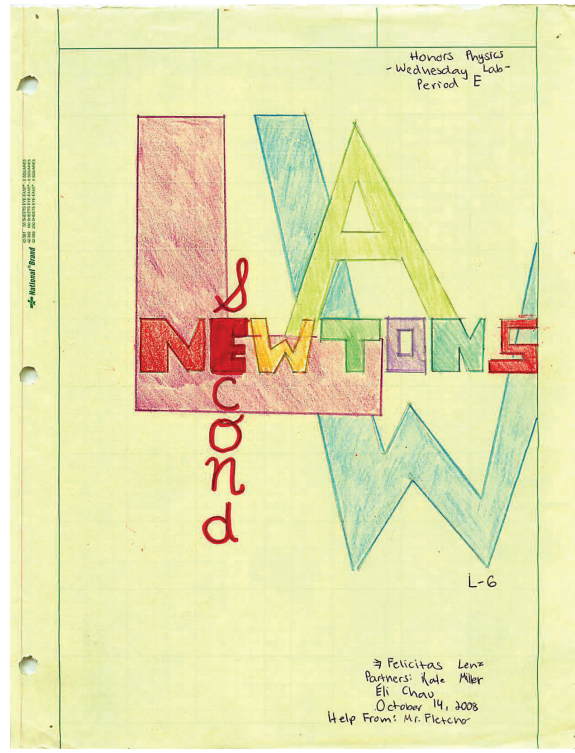


(L-3)

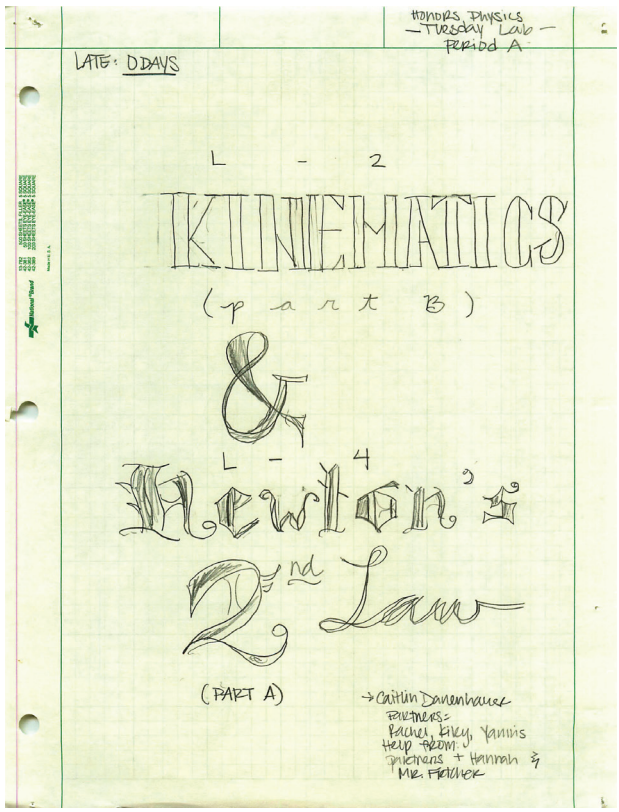
⇒ VICKI CHAN

partner: Pearlie Jeffers
Elisa Kim
October 16, 1997
help from:
Kentaro Suzuki

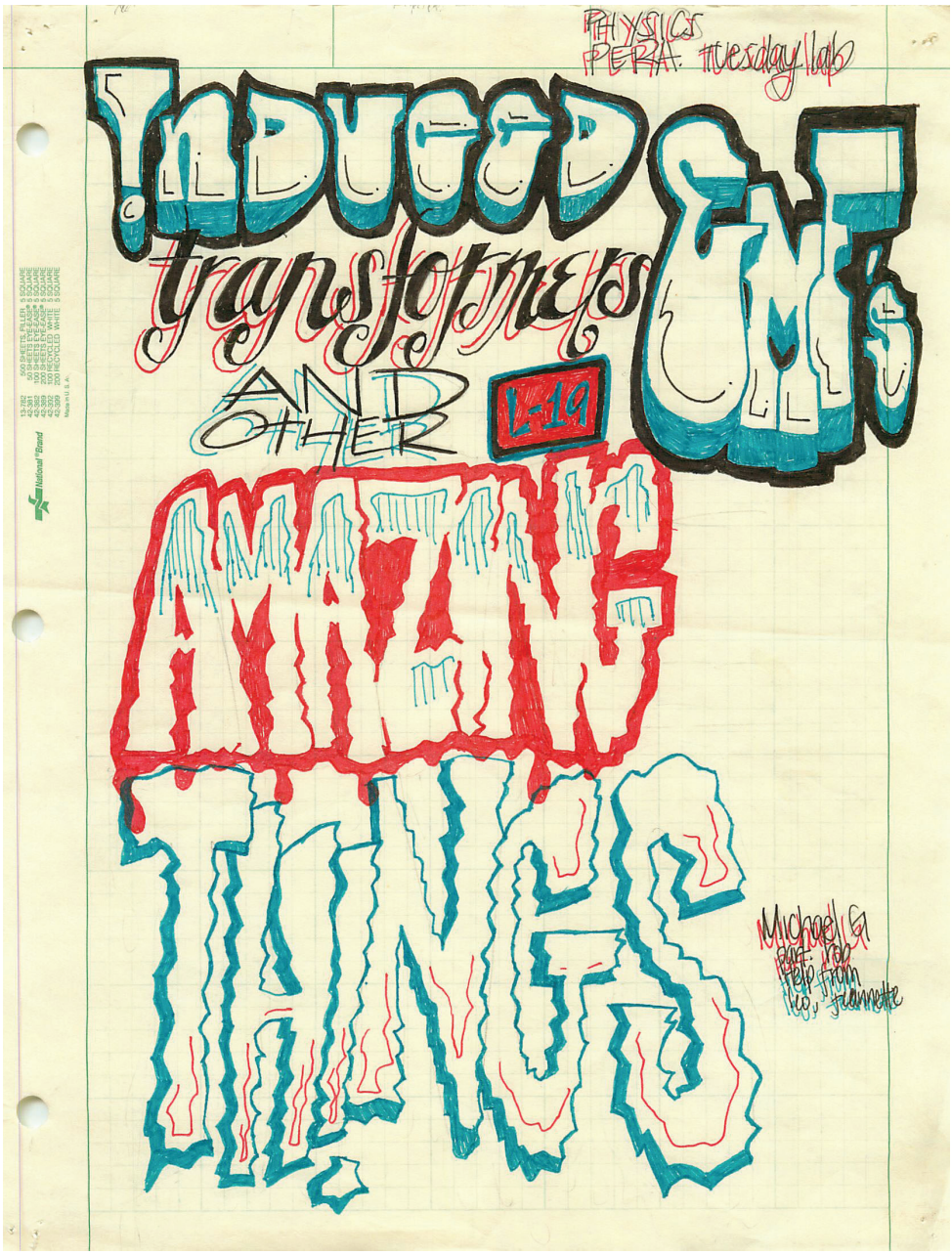
Newton's Law Lab



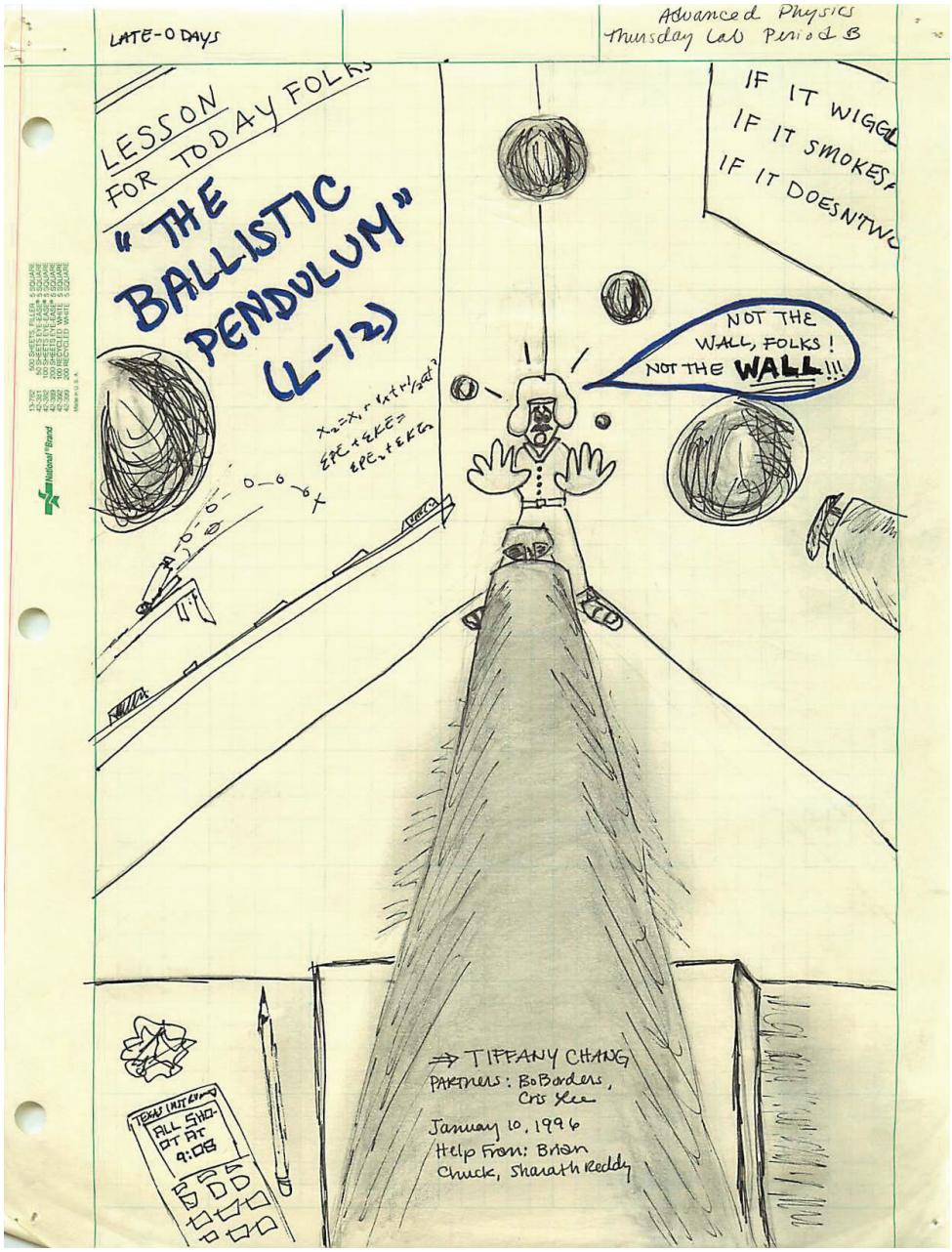
Kinematics Lab

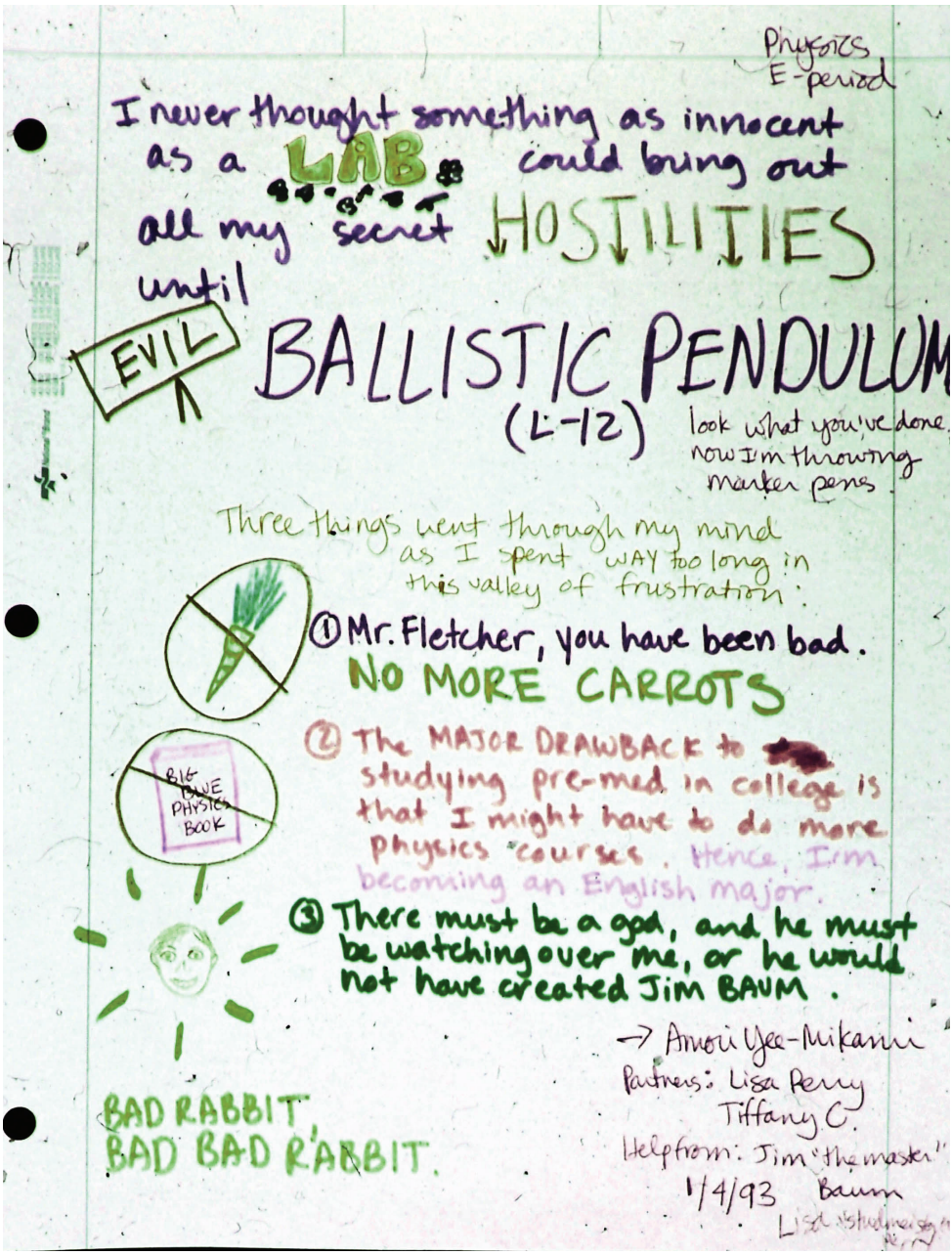


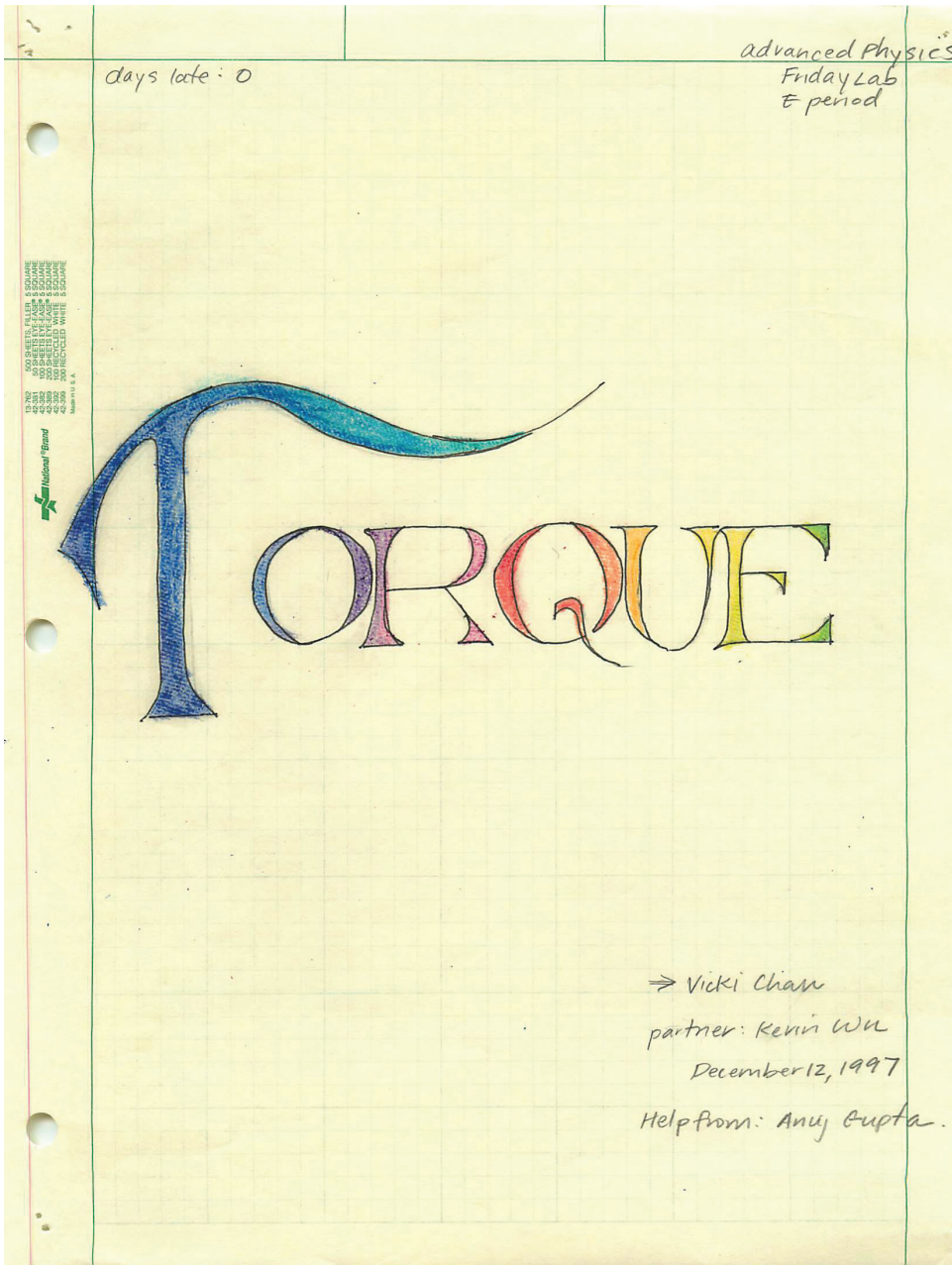
Induced EMF's Lab



Ballistic Pendulum Lab



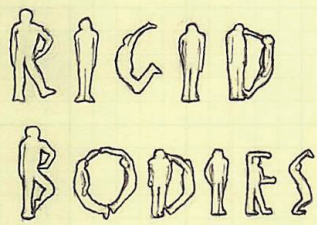

Physics
E-period
I never thought something as innocent as a LAB could bring out all my secret HOSTILITIES
until
EVIL
BALLISTIC PENDULUM
(L-12)
look what you've done
now I'm throwing
marker pens.
Three things went through my mind as I spent WAY too long in this valley of frustration:
① Mr. Fletcher, you have been bad.
NO MORE CARROTS
BIG BLUE PHYSICS BOOK
② The MAJOR DRAWBACK to studying pre-med in college is that I might have to do more physics courses. Hence, I'm becoming an English major.
③ There must be a god, and he must be watching over me, or he would not have created JIM BAUM.
BAD RABBIT,
BAD BAD RABBIT.
→ Amori Yee-Mikami
Partners: Lisa Perry
Tiffany C.
Help from: Jim "the master"
1/4/93 Baum


days late: 0
advanced Physics
Friday Lab
E period
TORQUE
⇒ Vicki Chan
partner: Kevin Wu
December 12, 1997
Help from: Anuj Gupta.

ADVANCED PHYSICS
-TUESDAY LAB-
(Period K)

LATE: ½ day

MISTY JOHNSON'S INTERMEDIATE AEROBICS CLASS
PROUDLY PRESENTS:

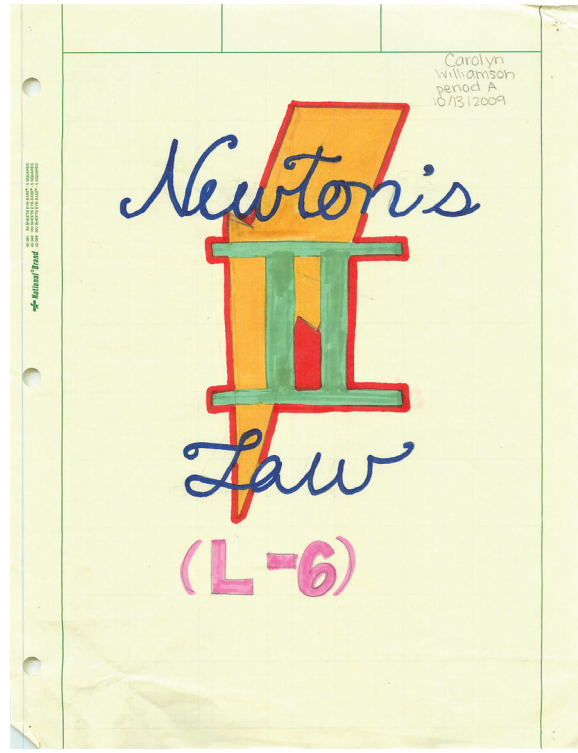


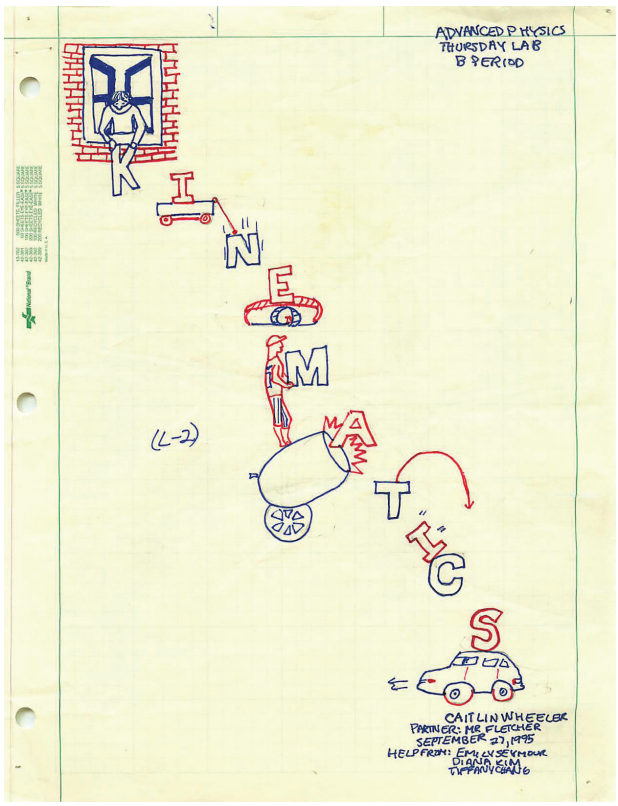
(L-8)

⇒ DAVID TRINKLE
PARTNERS:
HALF THE CLASS
JANUARY 17, 1984

HELP FROM:
whoever

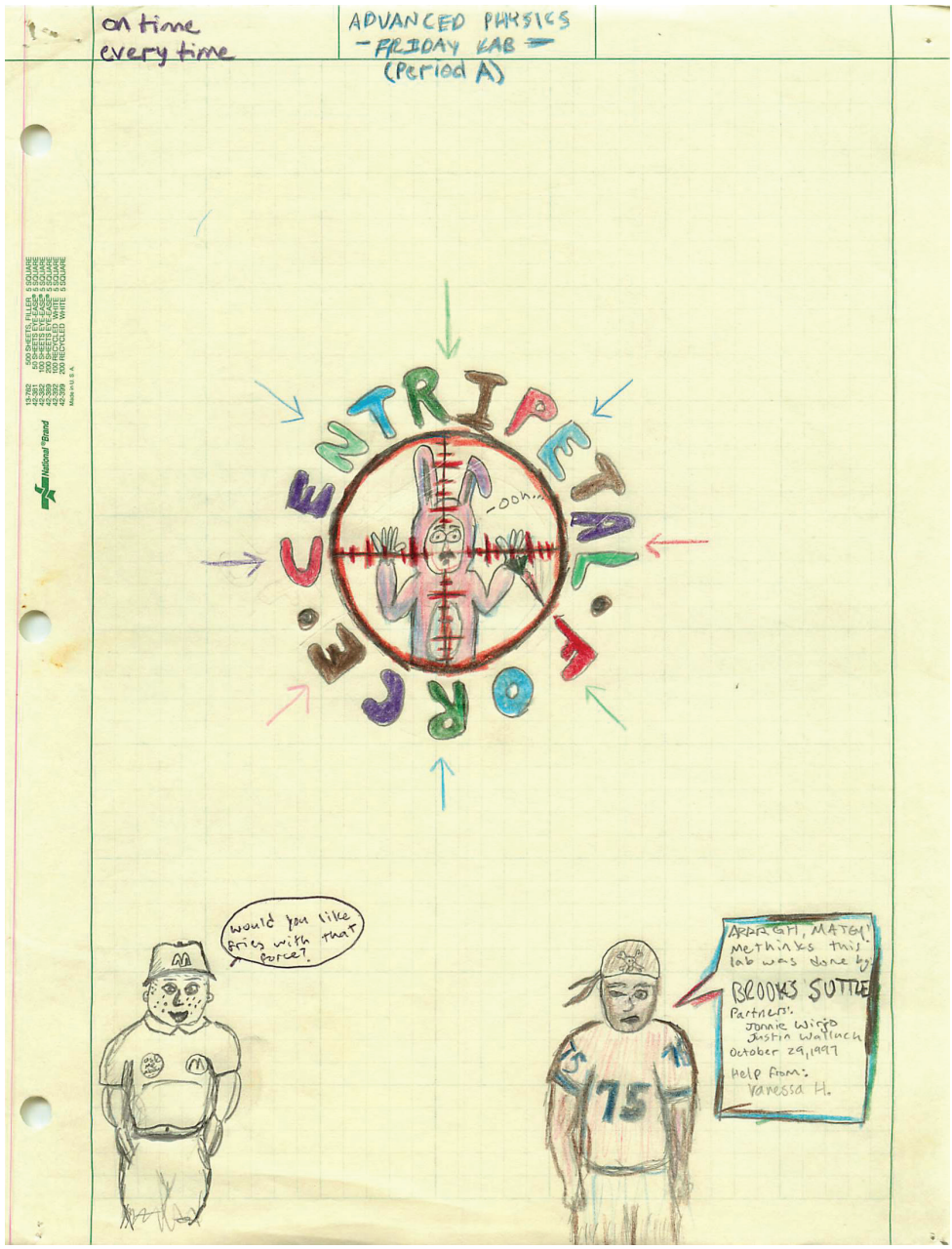
Newton's Law Lab





Kinematics Lab

Centripetal Force Lab

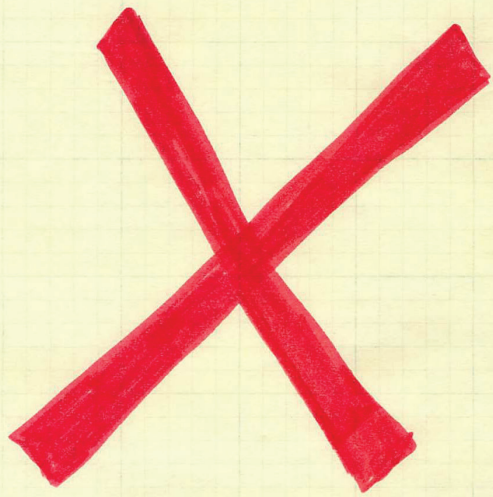


Collision and Impulse Lab

LATE: NOPE

Physics Per. B
Tuesday Lab

Hey, Everybody look... It's Sara's cool Lab Cover Game. You, too, get a chance to participate in Sara's Lab cover. (instructions below)



1. take 5 steps back and turn around so as to face lab cover
2. run as fast as you can with your head outstretched in front of you
3. Aim your head for the "X" and hit it as hard as you can
4. you have just experienced COLLISION AND IMPULSE (L-8)
5. Thanks for playing and have a nice day ☺

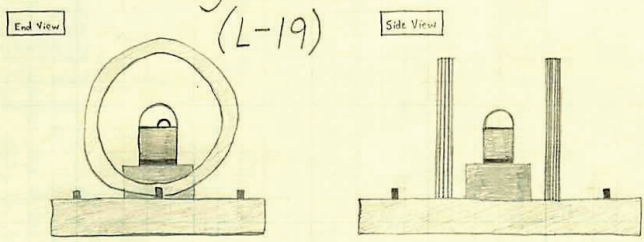
SARA HANNA
NOV. 18, 1997
PARTNERS: JANE, MARY
HELP FROM: Mr. Fletcher

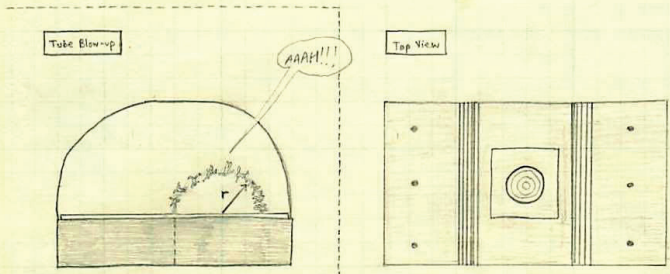
LATE: 0 DAYS

ADVANCED PHYSICS
THURSDAY LAB
PERIOD C

Electron Interaction With A Magnetic Field

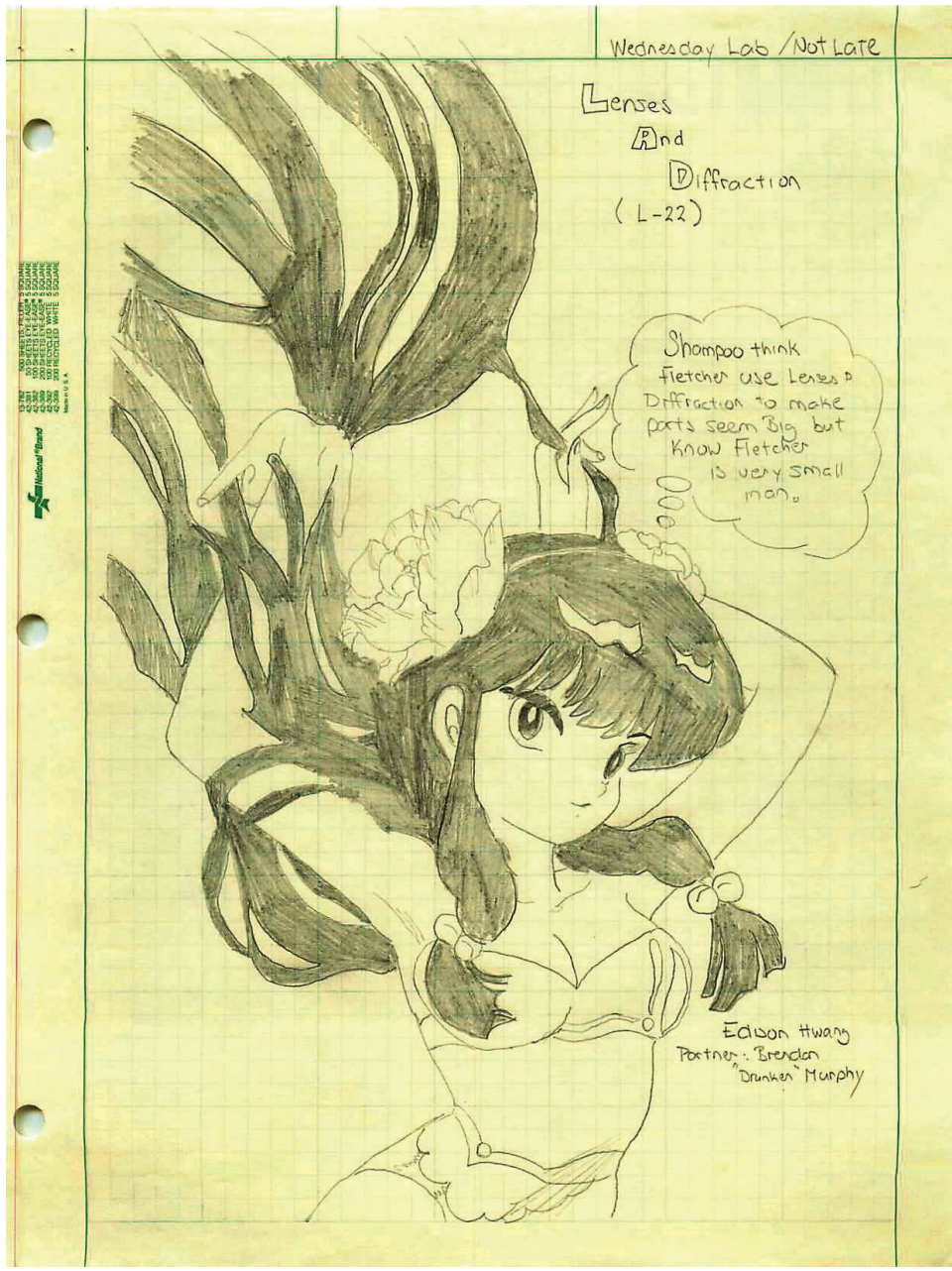
(L-19)





The screams of the tiny man couldn't be heard.

⇒ ANDREW LEE
PARTNERS: STEVEN WILSON
MATT MAYOCK
APRIL 15, 1997
HELP FROM: LAUREN, MR. FLETCHER
DAD (A LITTLE)


Wednesday Lab / Not Late
Lenses
And
Diffraction
(L-22)
Shampoo think Fletcher use Lenses & Diffraction to make parts seem Big but know Fletcher is very small man.
Edison Hwang
Partner: Brendan "Drunken" Murphy

Newton's Second Law Lab

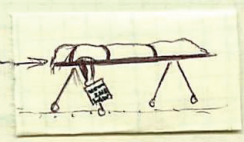
Late: 0 days | Matador or Ode to a Physics Lab | Advanced Physics Friday Lab Period C

There he stands
head cocked, eyes flashing
tall, taunting,
a sneer;
his teeth, white-brilliant
under a sleek, dark mustache
dressed in fitted jacket and virile pants
He stands
weight on rear foot
poised challenging

NEWTON'S 2ND LAW (L-3)

He hangs
a red square
it waffles in the breeze
I must
break through
I strike at the ground
with my hoofs,
head lowered,
poised, ready.
I break through with breakneck speed.
T minus m, times g equals m_1 times a-th
2T minus $m_2 g$ equals m_2 times one-half a-th
solve for T
substitute
factor, group like terms, divide by
m_2
What, my answer should have 4's and 2's?
4's and 2's ??!!
I crash headlong
knocked blind, no senses
for a moment,

When the dust clears
I pick myself up
brush myself off
I have not succeeded
Reposition myself
set my course
all the while
my eyes
intent
on that red square
flapping in the breeze
I must break through
It is imperative.



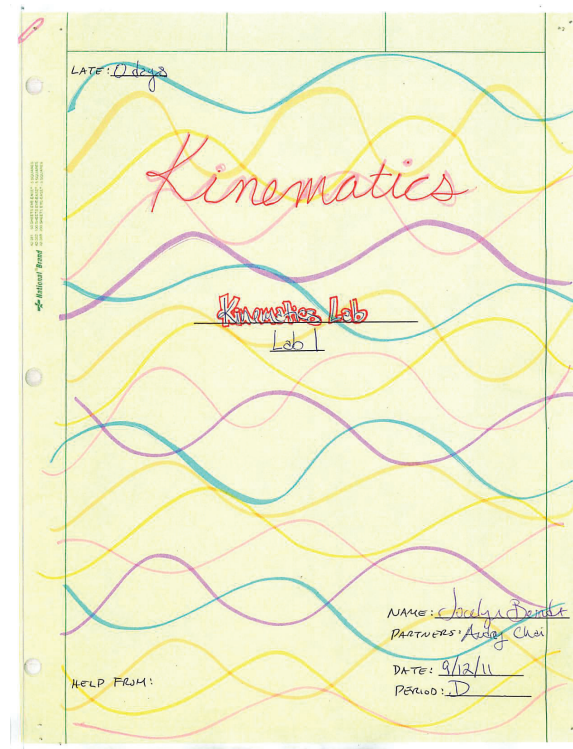
I butt heads
one wall after another
and each time
I dust myself off
retread
scrape the ground
and attempt again

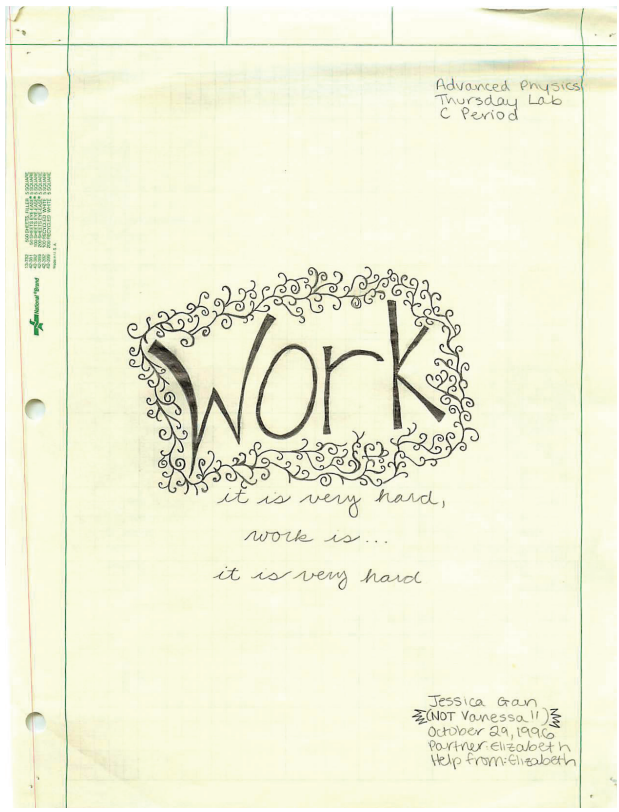
Until I finally
bruised, weary
but still fiery
I charge
and hit nothing
I look back
and I have conquered
yet stands another man
before me,
this same man,
smile cocked,
eyes flashing,
under his dark, wide
sombrero.

- written on the Lord's Day, 2 October, 1996 for Mrs. Boyd's English 4 (Period D) class, requirement: extended metaphor

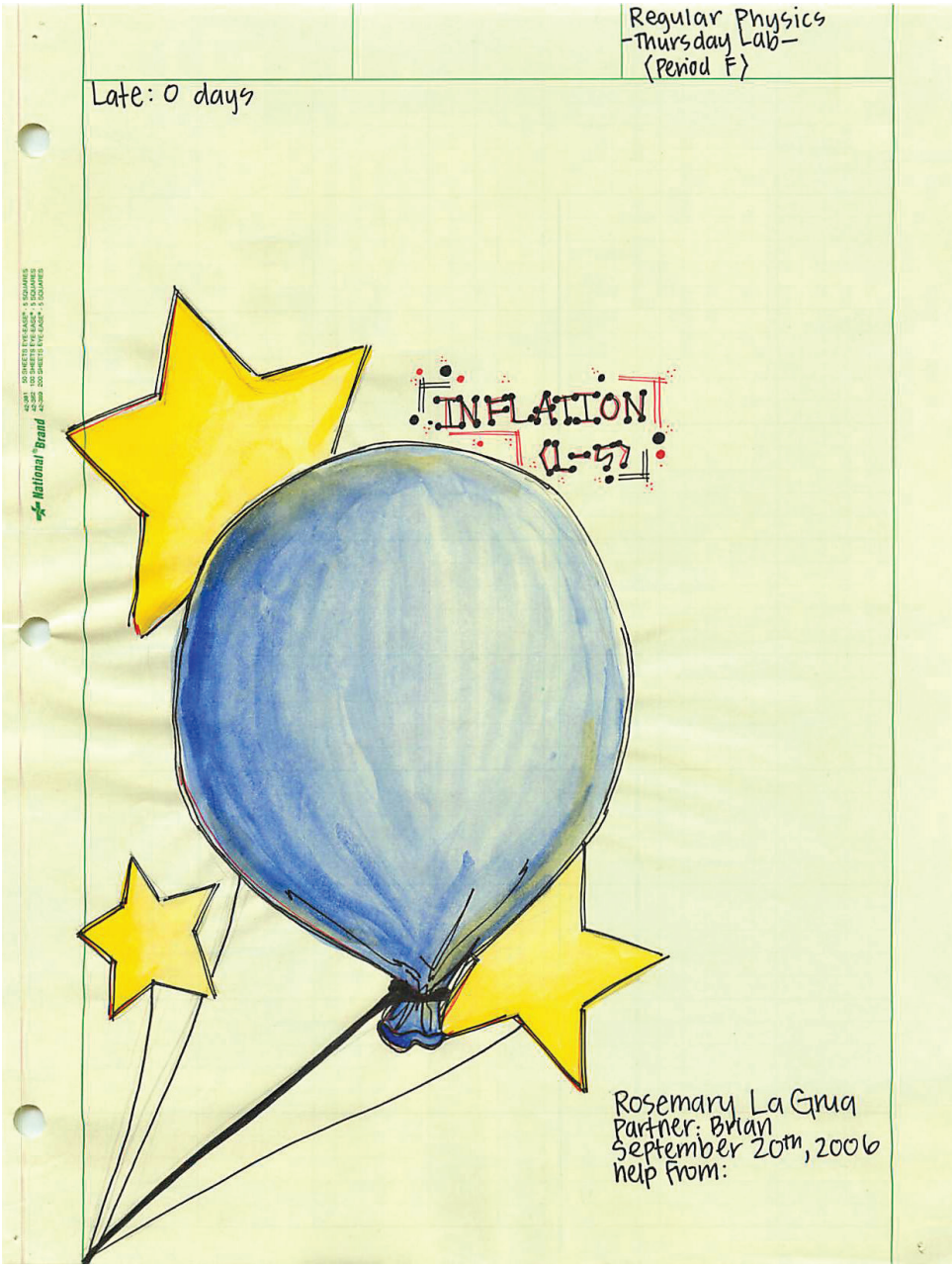
Jay Hsu
Partner: Ray Bergstrom
Help from:
C. Fletcher
R. Triche
L. Dorsey

Kinematics Lab





Work Lab


Regular Physics
-Thursday Lab-
(Period F)
Late: 0 days
INFLATION
Q-7
Rosemary La Grua
Partner: Brian
September 20th, 2006
help From:

Centripetal Force Lab

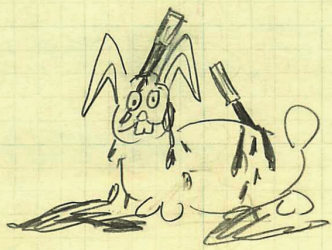
LATE: NOT

Ad Phy-Sucks
Period 6-Vil

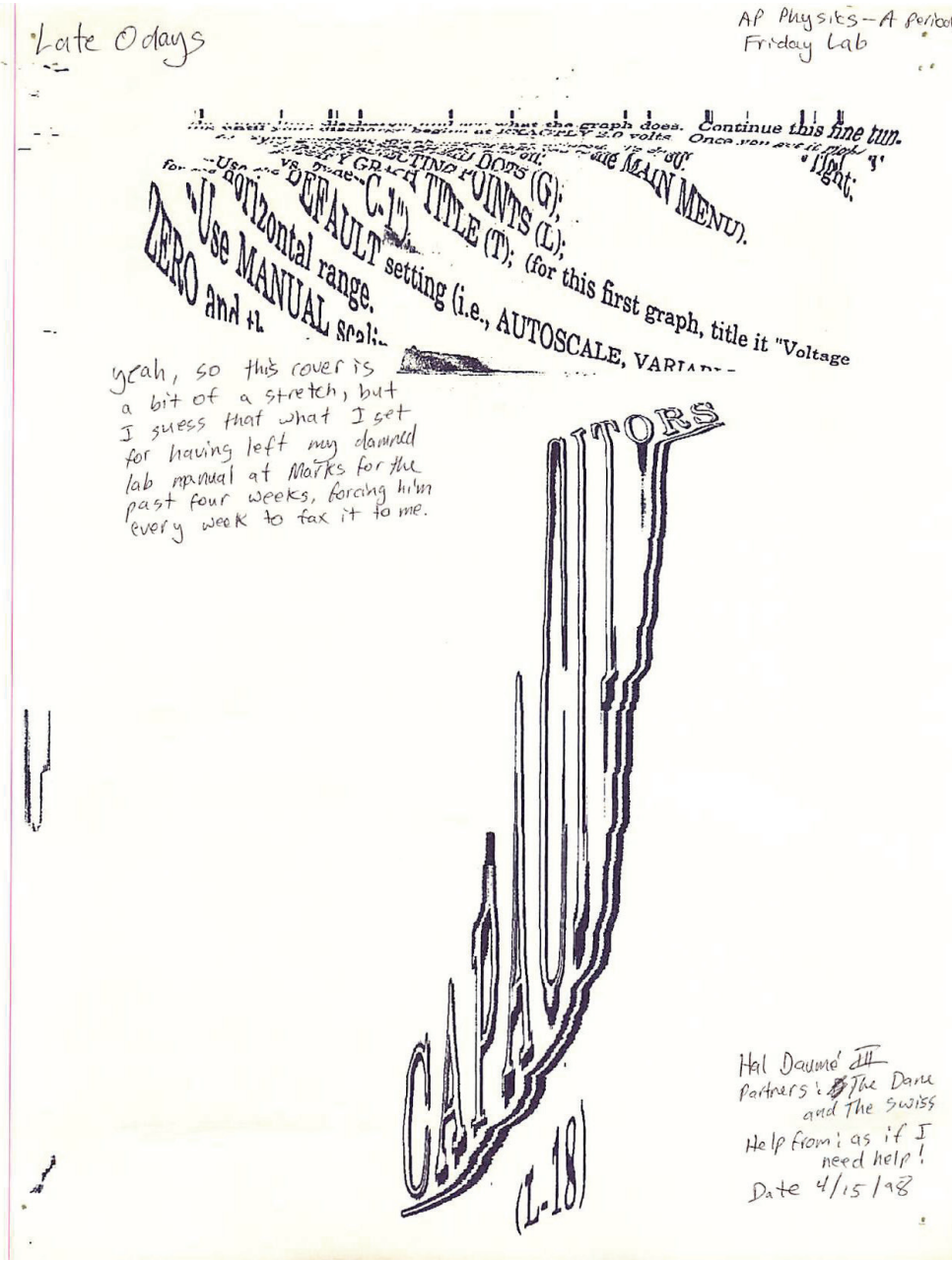
Centripetal Force
(1-5)

THESE LABS ARE A PAIN IN THE A**!

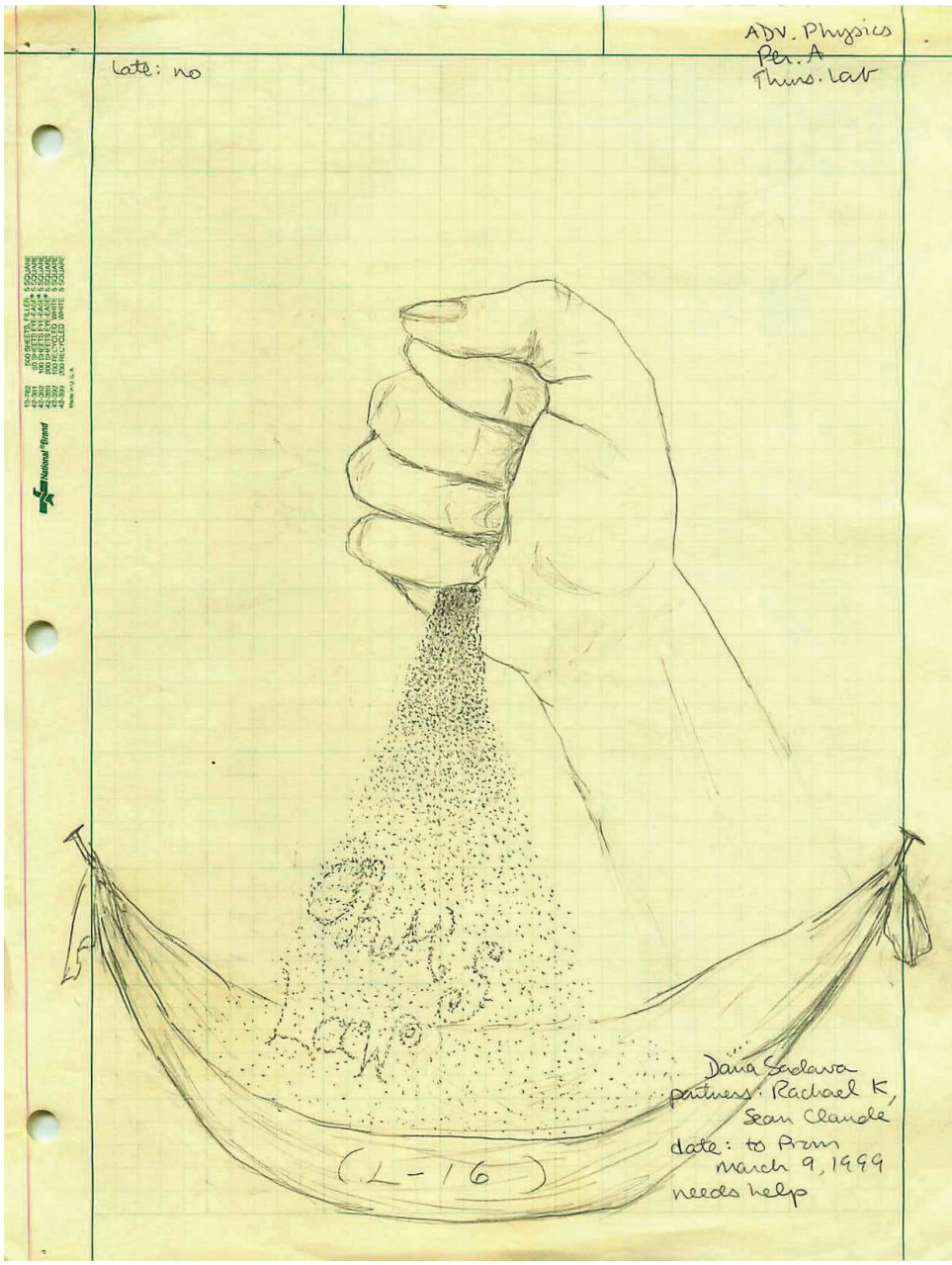
I HATE THEM. I'M TIRED. I'M SICK OF SCHOOL. I HATE RABBITS.



Syd Schaub
Partners: Mary & Britt
Date: none. I'm too busy doing lab and I never get out anymore.
Help from: Virgo.
Bless him.


Late O days
AP Physics – A period
Friday Lab
Continue this fine tun.
Once you get it right, 3'
the MAIN MENU).
DOTS (G);
TITLE (T); (for this first graph, title it "Voltage
"DEFAULT setting (i.e., AUTOSCALE, VARIA
"Use MANUAL scal
horizontal range.
ZERO and +L
yeah, so this cover is a bit of a stretch, but I guess that what I get for having left my damned lab manual at Marks for the past four weeks, forcing him every week to fax it to me.
CAPACITORS
(L-18)
Hal Daume III
Partners: The Dane and The Swiss
Help from: as if I need help!
Date 4/15/98

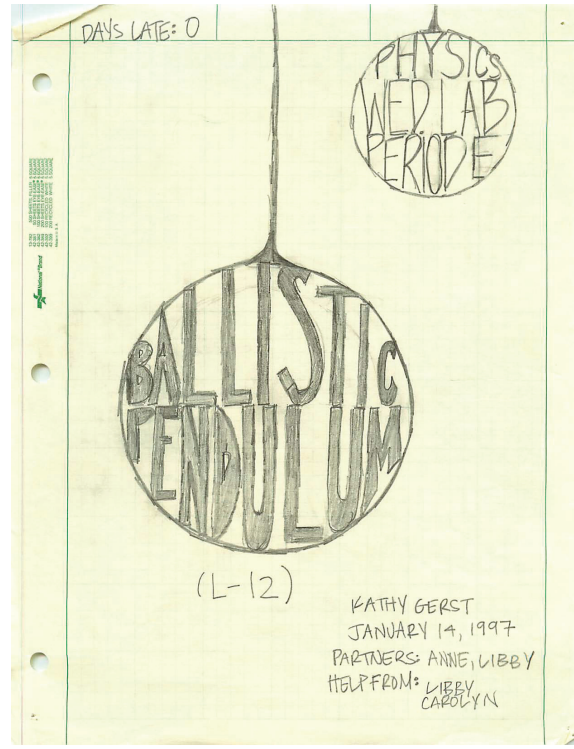
Ohm's Law Lab

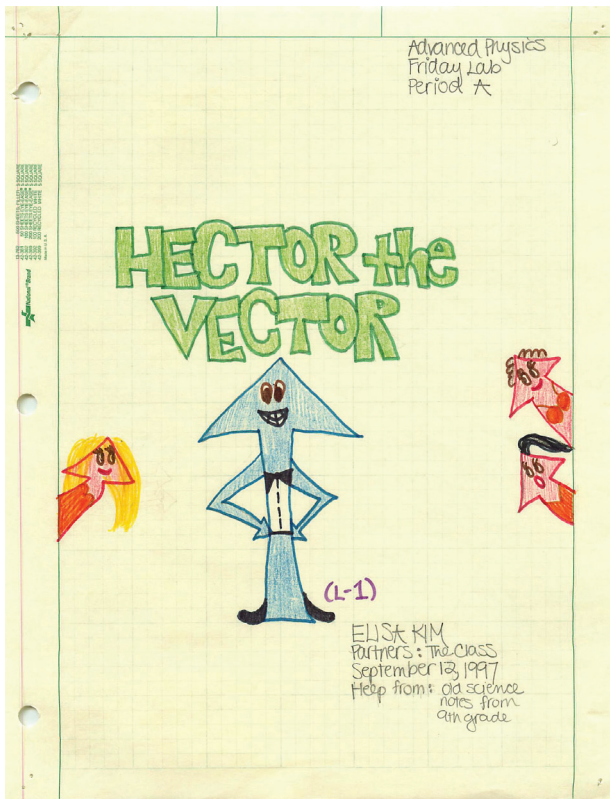

late: no
ADV. Physics
Per. A
Thurs. Lab
Dana Sadava
partners: Rachael K,
Sean Claude
date: to Prom
March 9, 1999
needs help
(L-16)

Ohm's Law Lab

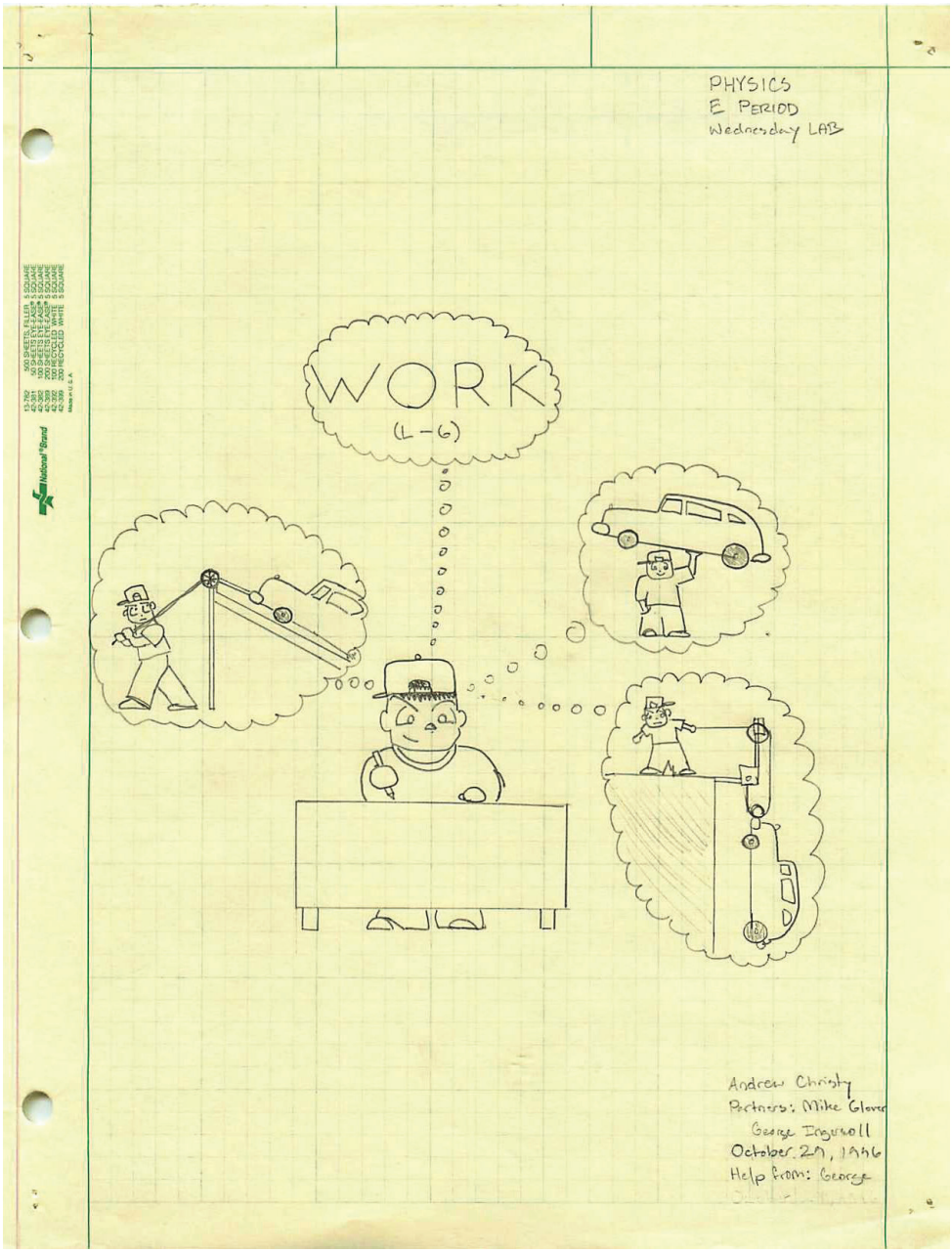
NO LATE
Per. E
Physics
TUES LAB
OHM
SPLIFFICIENT CHIVA CHIVA
KIND
Dat Da Chronic Ohma?
OHMY GOD
MEXICAN GREEN BUD
Cough Cough Cough
MEGA
OHMIE
Somebody drive my
BLUNT
Help from Phil
Adam Stone

Ballistis Pendulum Lab

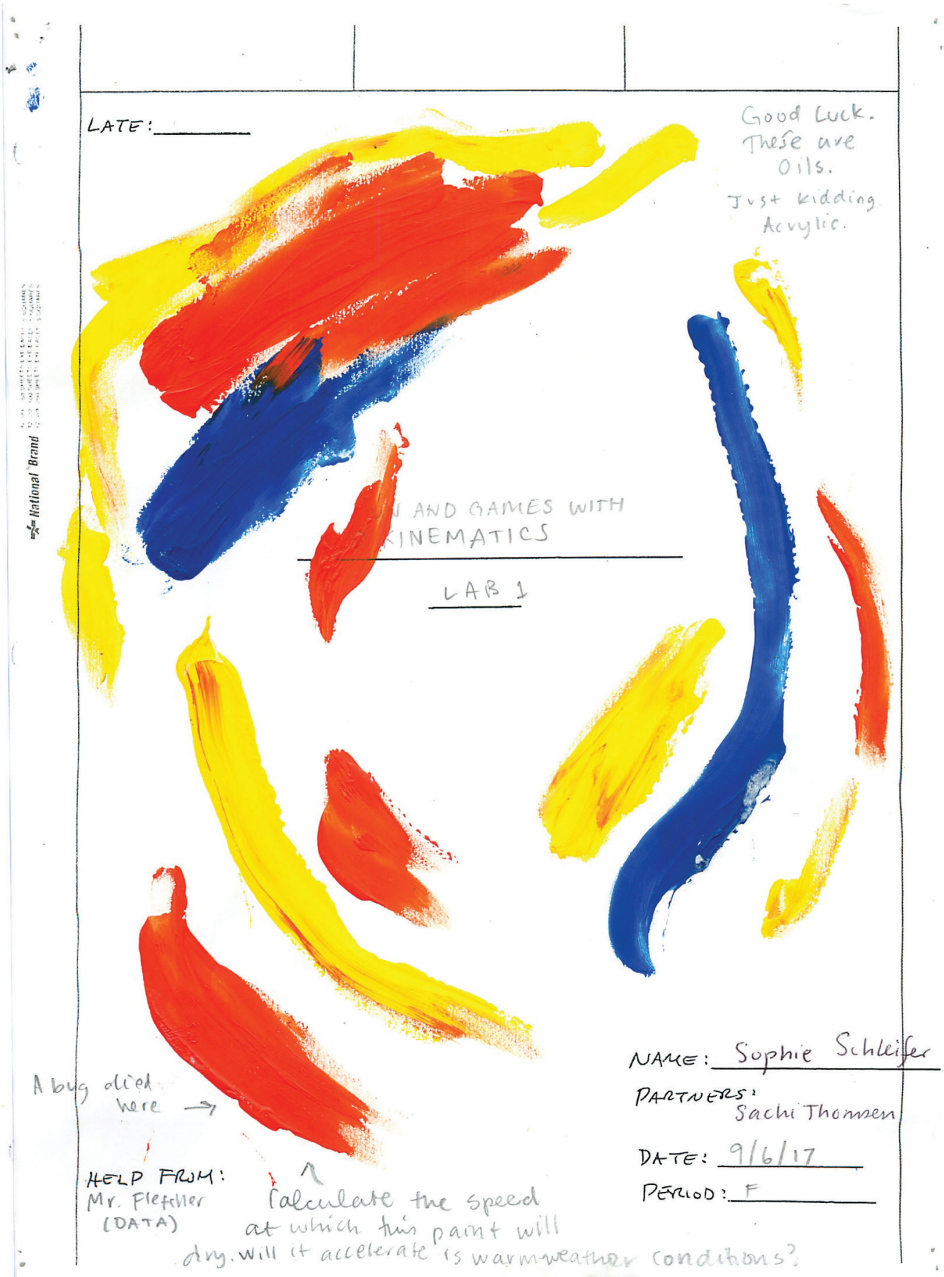


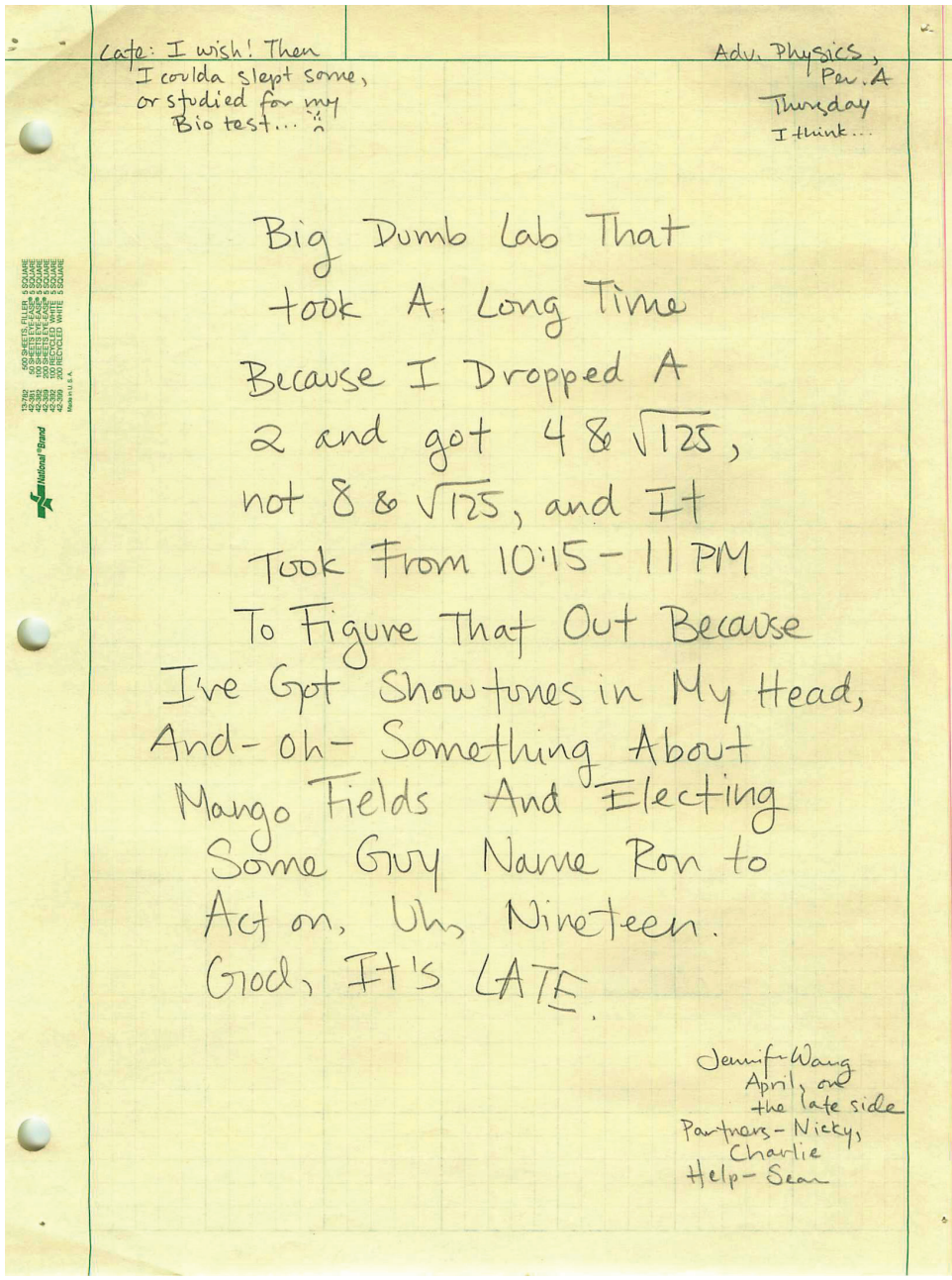


Vectors Lab


PHYSICS
E PERIOD
Wednesday LAB
WORK
(L-6)
Andrew Christy
Partners: Mike Glover
George Ingersoll
October 29, 1996
Help from: George

Centripetal Force Lab


LATE:
Good Luck. These are Oils.
Just kidding. Acrylic.
AND GAMES WITH
INEMATICS
LAB 1
NAME: Sophie Schleifer
PARTNERS: Sachi Thomsen
DATE: 9/6/17
PERIOD: F
A bug died here
HELP FROM: Mr. Fletcher (DATA)
Calculate the speed at which this paint will dry. Will it accelerate is warm weather conditions?



Late: I wish! Then I coulda slept some, or studied for my Bio test... :\

Adv. Physics, Per. A
Thursday
I think...

Big Dumb Lab That took A Long Time Because I Dropped A 2 and got $4 \& \sqrt{125}$, not $8 \& \sqrt{125}$, and It Took From 10:15 - 11 PM To Figure That Out Because I've Got Showtunes in My Head, And - oh - Something About Mango Fields And Electing Some Guy Name Ron to Act on, Uh, Nineteen. Good, It's LATE.

Jennifer Wang
April, on the late side
Partners - Nicky, Charlie
Help - Sean

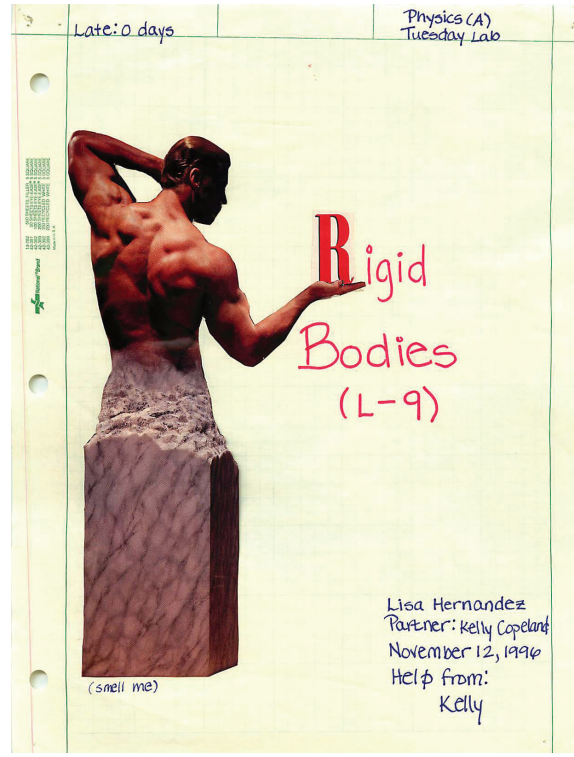
#DAYS LATE: 0

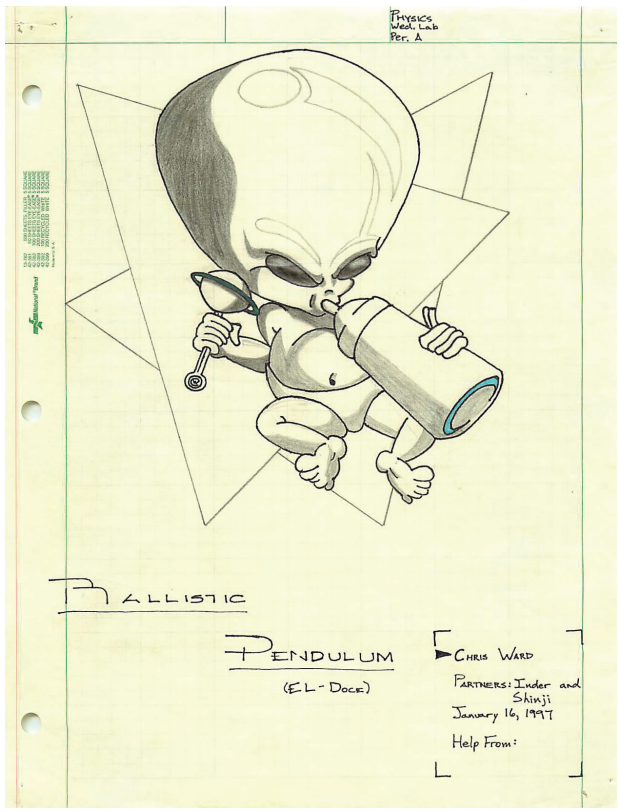
ADVANCED PHYSICS
FRIDAY LAB (PERIOD A)

(L-1)

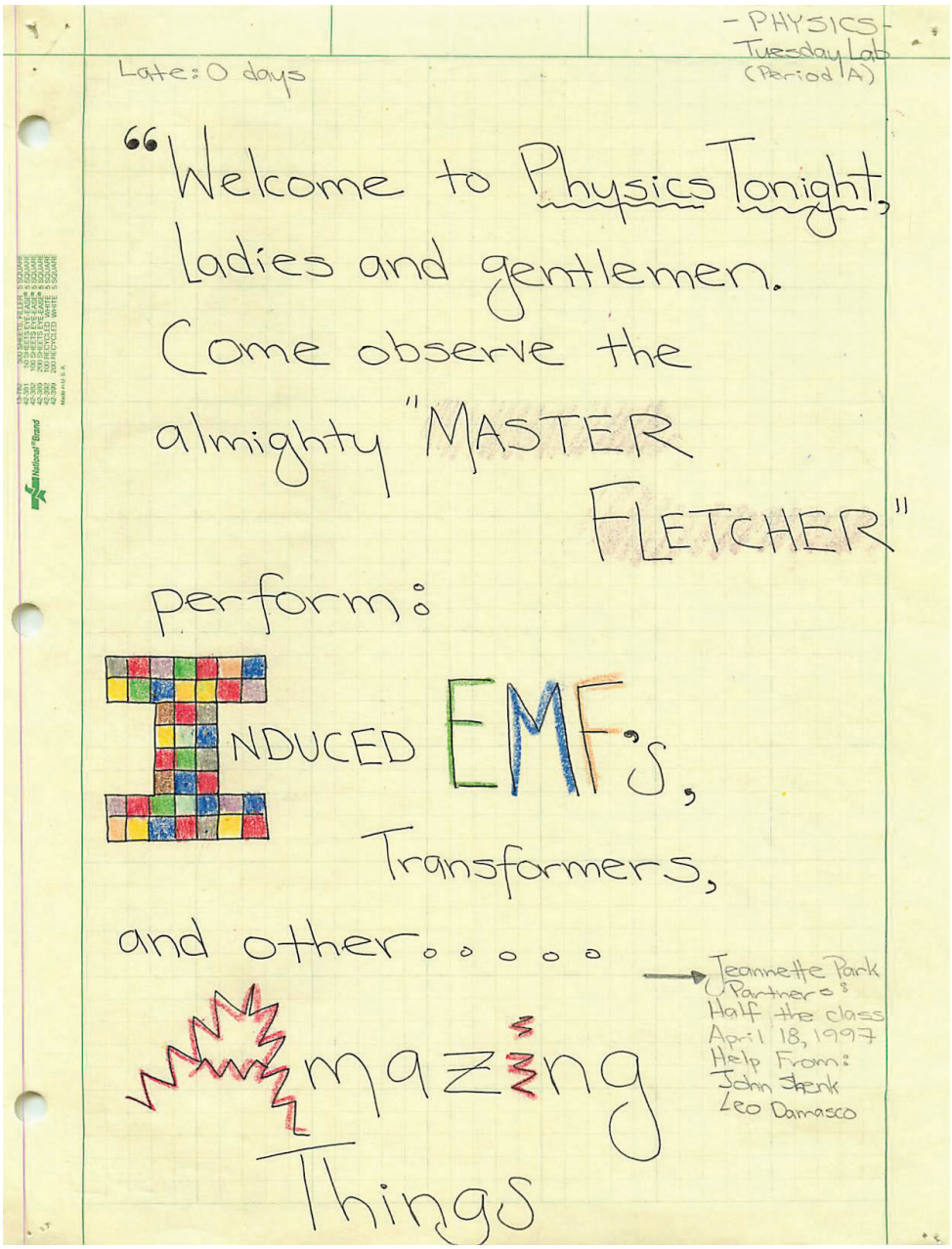
Kevin Wu
PARTNERS: THE WHOLE CLASS
SEPTEMBER 17, 1997
HELP FROM:
KENTARO SUZUKI (PERIOD E)

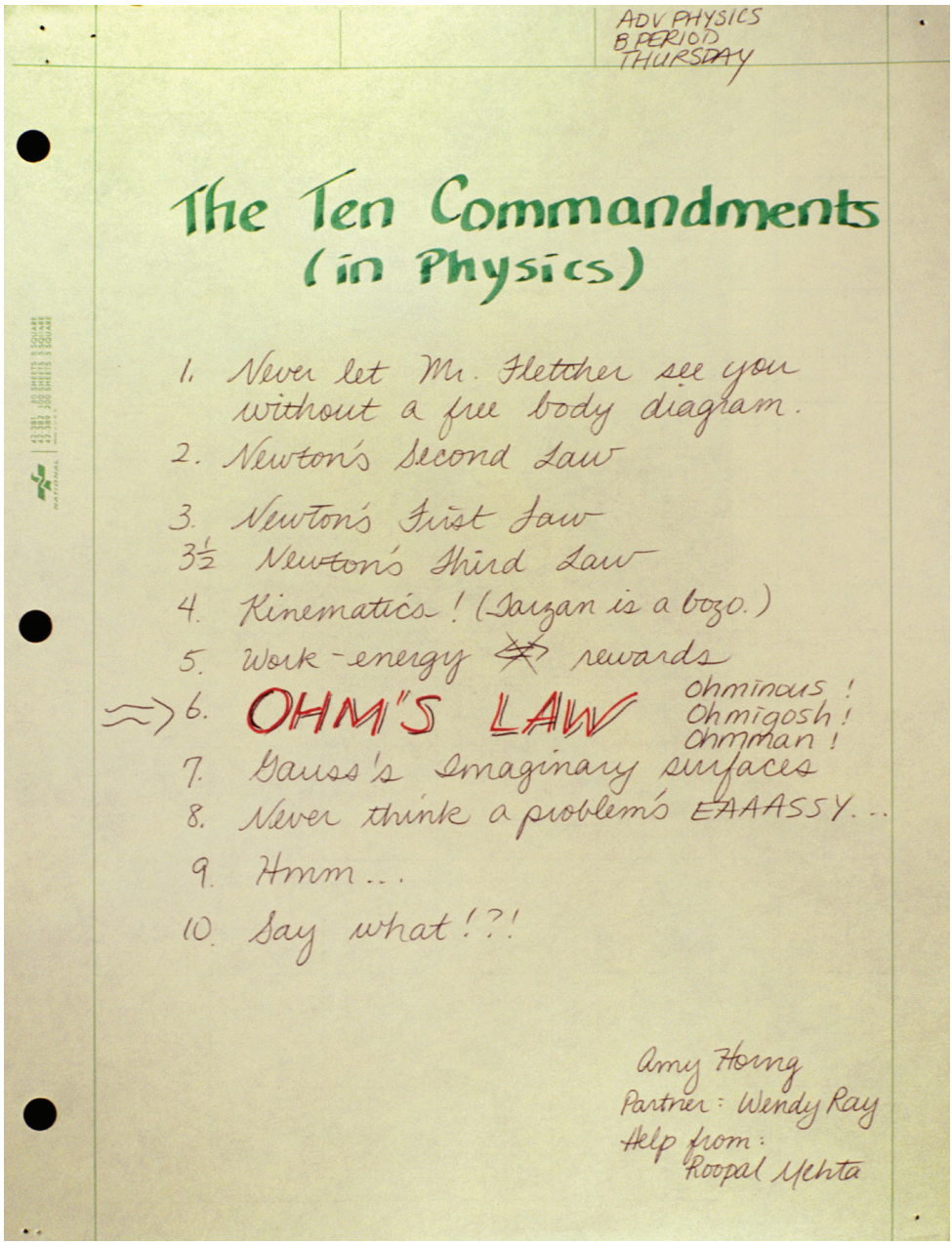
Rigid Body Lab





Ballistic Pendulum Lab


- PHYSICS -
Tuesday Lab
(Period 1A)
Late: 0 days
"Welcome to Physics Tonight, ladies and gentlemen. Come observe the almighty "MASTER FLETCHER" perform:
INDUCED EMF's,
Transformers,
and other.....
mazing
Things
Jeannette Park
Partners
Half the class
April 18, 1997
Help From:
John Shenk
Leo Damasco



ADV PHYSICS
B PERIOD
THURSDAY

The Ten Commandments (in Physics)

1. Never let Mr. Fletcher see you without a free body diagram.
2. Newton's Second Law
3. Newton's First Law
3½ Newton's Third Law
4. Kinematics! (Tarzan is a bozo.)
5. Work-energy ~~&~~ rewards
6. OHM'S LAW — ohminous! ohmigosh! ohmman!
7. Gauss's imaginary surfaces
8. Never think a problem's EAAASSY...
9. Hmm...
10. Say what!?!

Amy Horng
Partner: Wendy Ray
Help from:
Roopal Mehta

I really couldn't tell you but somewhere around 1.728×10^7 milliseconds late

A period physics tuesday lab

INDUCED EMF'S,
TRANSFORMERS,
AND OTHER
AMAZING THINGS

A.K.A.

The lab I probably wouldn't have done if I wasn't already missing several other labs.

OR

Oh God! This lab took me longer than the Torque lab back from my days when Physics Terror was just starting.

or

Senioritis?

or

We have a test on this stuff when???

or

The inverse relationship between a lab and the amount of time sleeping a senior has the night (or even a few nights after) the lab is due.

or

The lab from Hell!
(Cliché but it works)

or

The lab my ancestors warned me about but I foolishly ignored them.

or

The lab that measures just how much a student can regret taking a class that is not even required or at this point, important to nothing in general.

or

Why?

Kenneth Lee

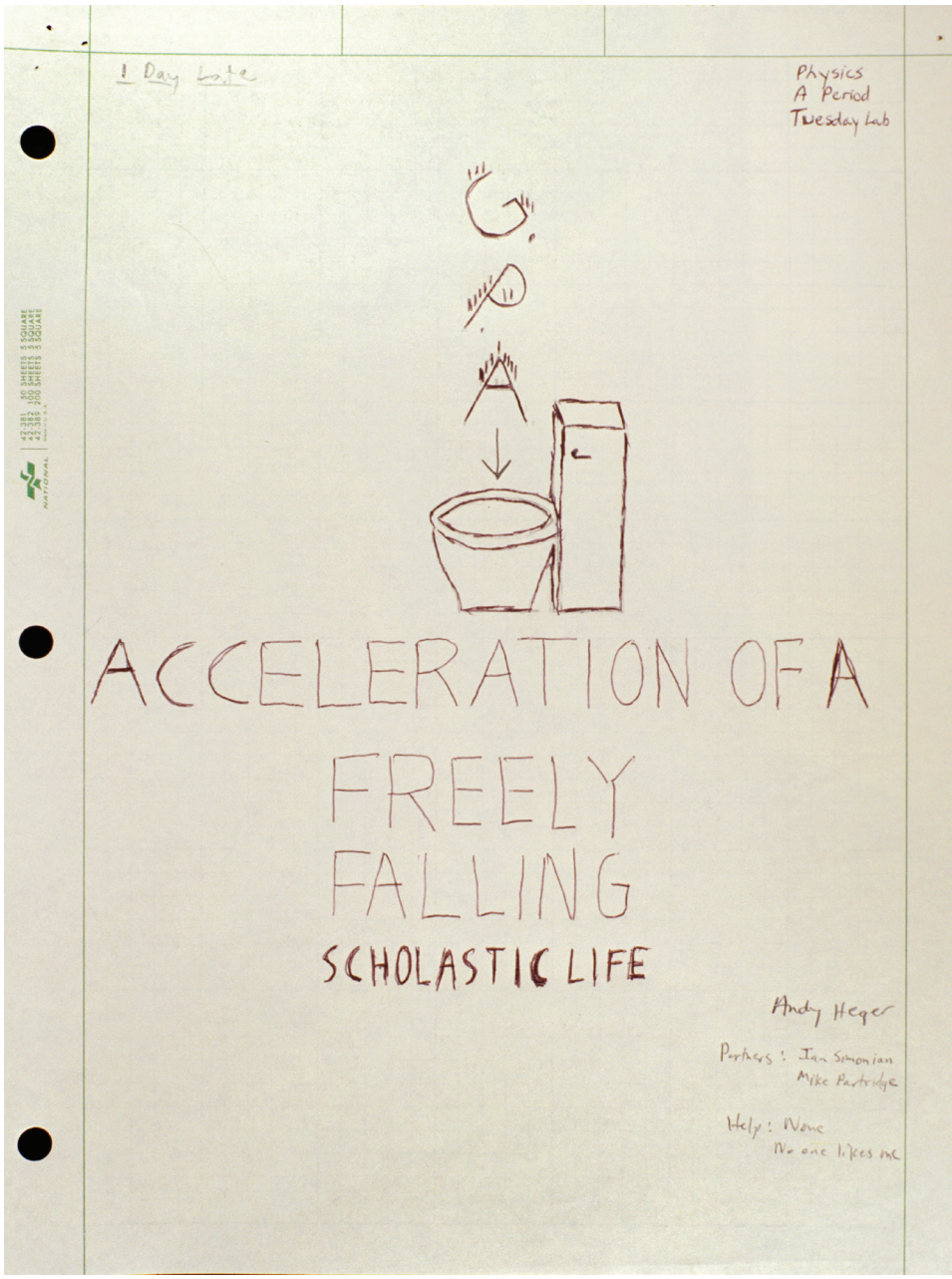
Partners: That rest of the class that bothered to show up for this incredibly difficult lab.

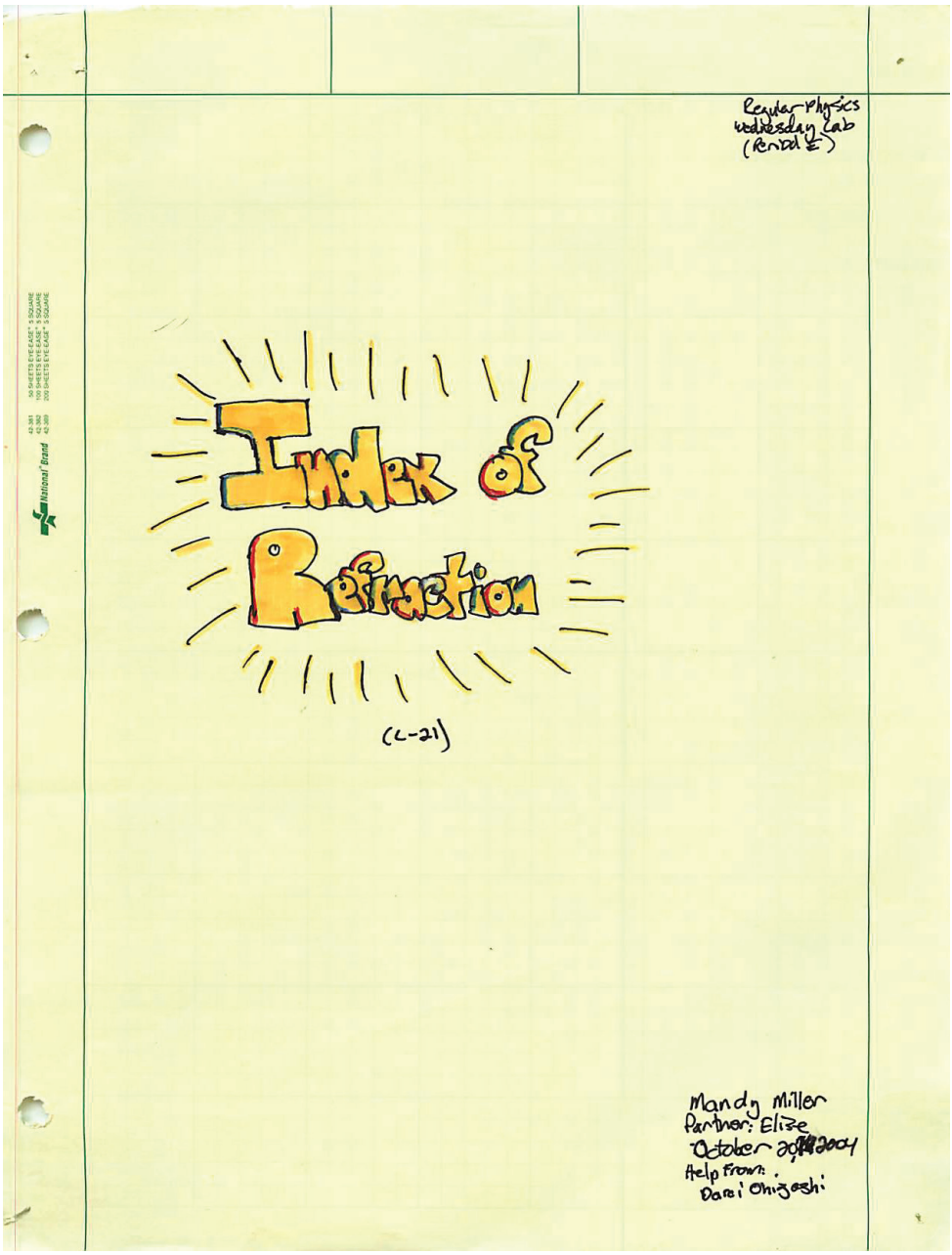
Help From:

Basem "I wish I had a few more cylinders" Wasef

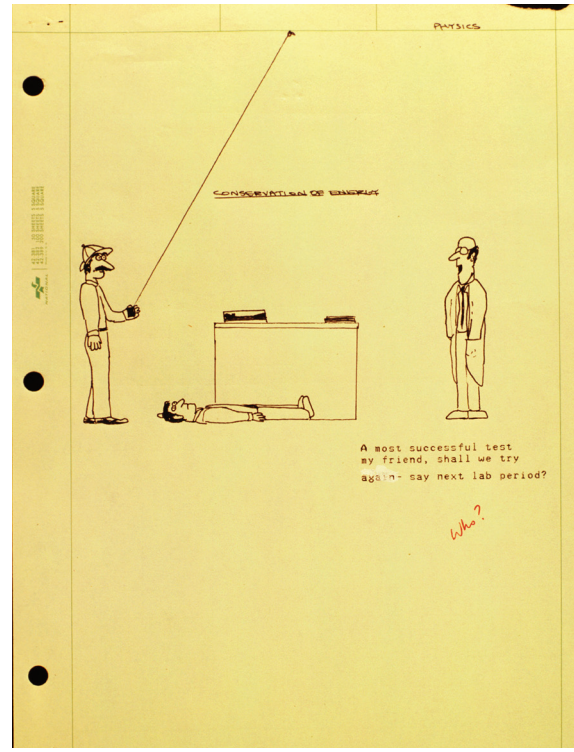
Michelle "Missing a few cylinders" Hsu

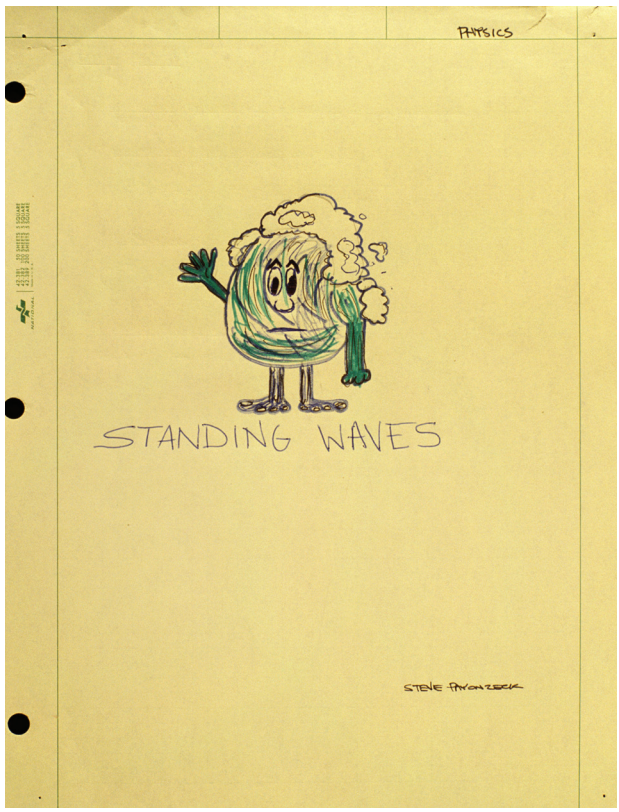
Mr. "I haven't studied this stuff since my college days" Hsu


1 Day Late
Physics
A Period
Tuesday Lab
G
A
ACCELERATION OF A
FREELY
FALLING
SCHOLASTIC LIFE
Andy Heger
Partners: Jan Simonian
Mike Partridge
Help: None
No one likes me


Regular Physics
Wednesday Lab
(Period E)
Index of Refraction
(L-21)
Mandy Miller
Partner: Elise
October 30th 2004
Help from:
Dani Ohigashi

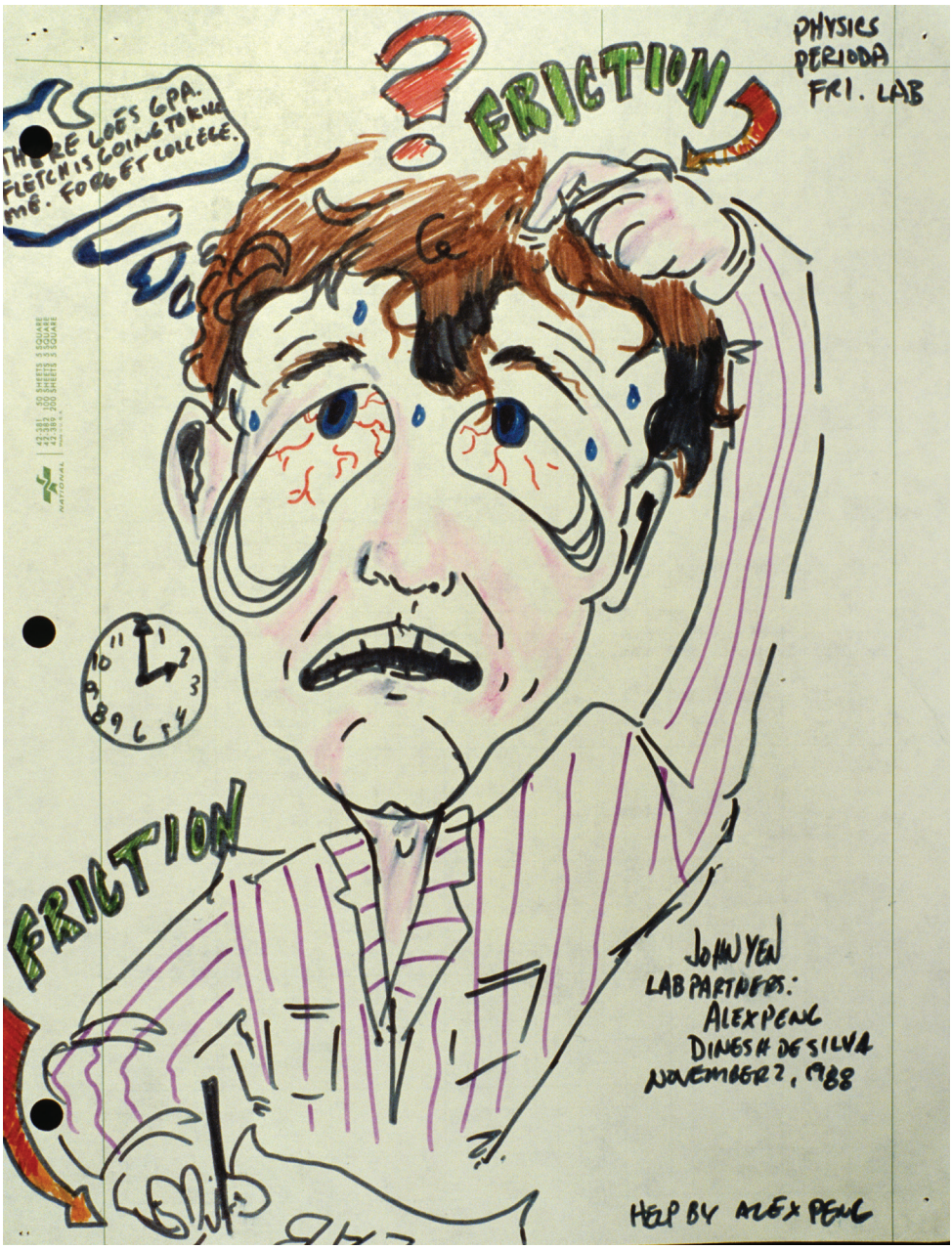
Energy Lab





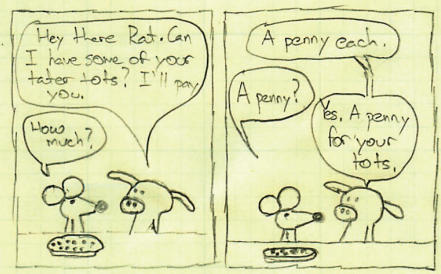
Standing Wave Lab

Friction Lab



Late:

Work Lab
L-10



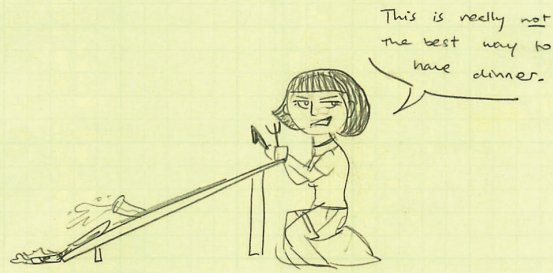
Help From: Fletcher

Name: Mohit Aayush
Partner: Stephanie C., Annie W
Date: November 2, 2015
Period: D

LATE: _____

Tilted Table Lab

L4



Name: Emma Bradforth

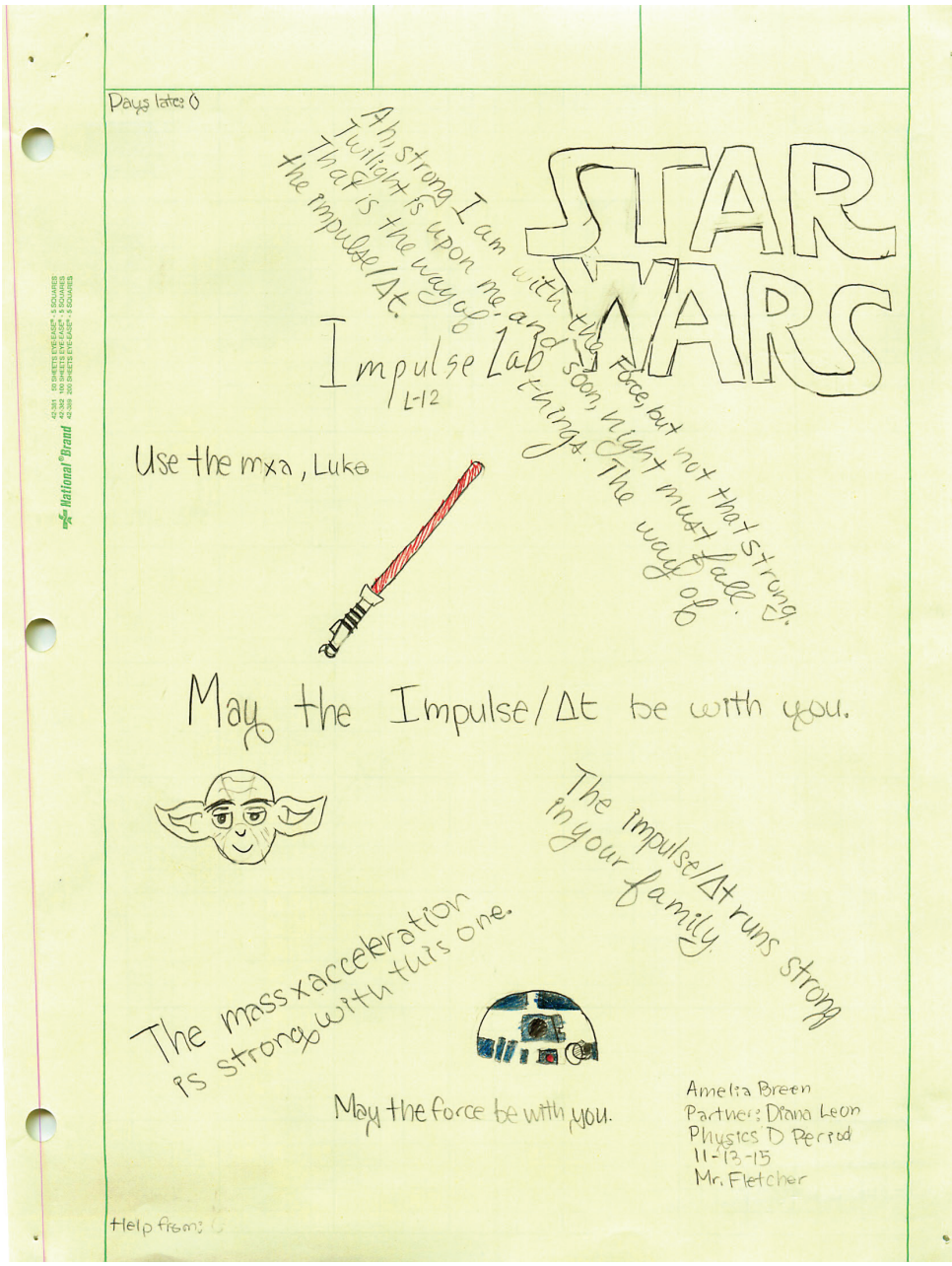
Partners: Isa LV, Randy Heartfield, Sarah Johnson

Date: 18 September 2017

Period: F

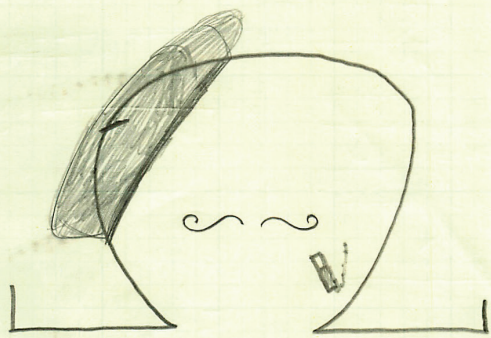
Help From:

Craig Fletcher


Days late: 0
STAR WARS
Impulse Lab
L-12
Ah, strong I am with the force, but not that strong. Twilight is upon me, and soon night must fall. That is the way of the Impulse/Δt. The way of things. The way of
Use the mxa, Luke
May the Impulse/Δt be with you.
The mass x acceleration is strong with this one.
The impulse/Δt runs strong in your family.
May the force be with you.
Amelia Breen
Partner: Diana Leon
Physics D Period
11-13-15
Mr. Fletcher
Help from:

On Time: yes

Ohm's Law
L-20



The French Resistance

Michael Caughron
Partners: Alison Ball
Caleb Lee
2012-02-25
D period

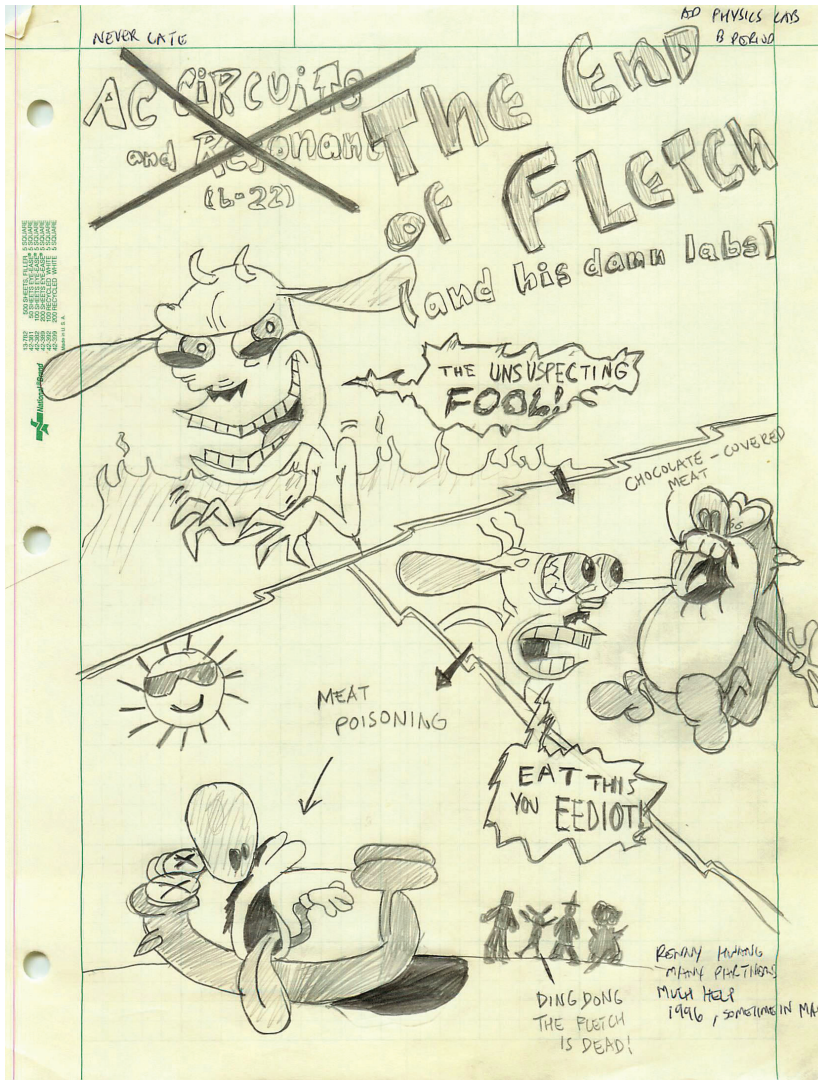
Help: none

Chapter 42

Lab Covers—Part 3

I had every intention of stopping with the second chapter, but I just ran into a bevy of new, cool covers, so I'm including at least one more chapter.

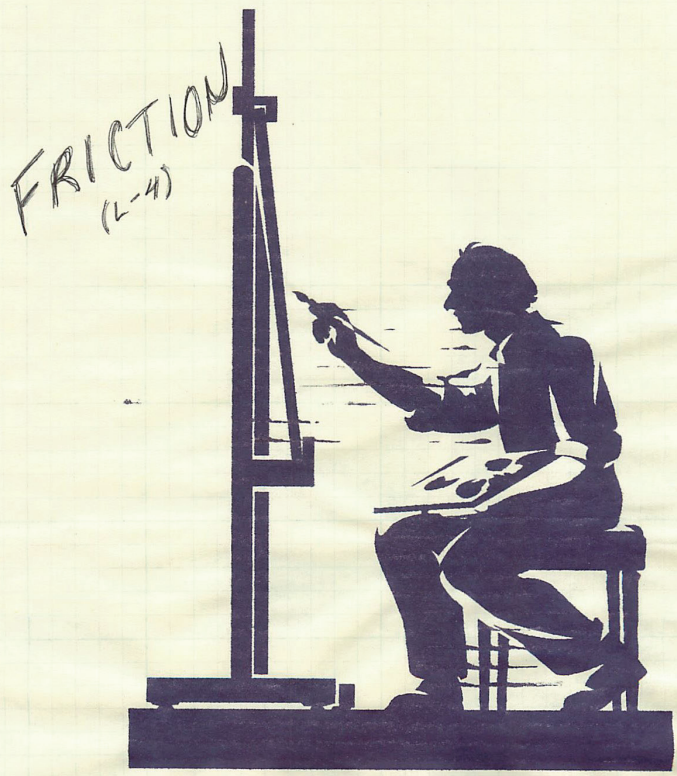
AC Circuits and Resonance Lab



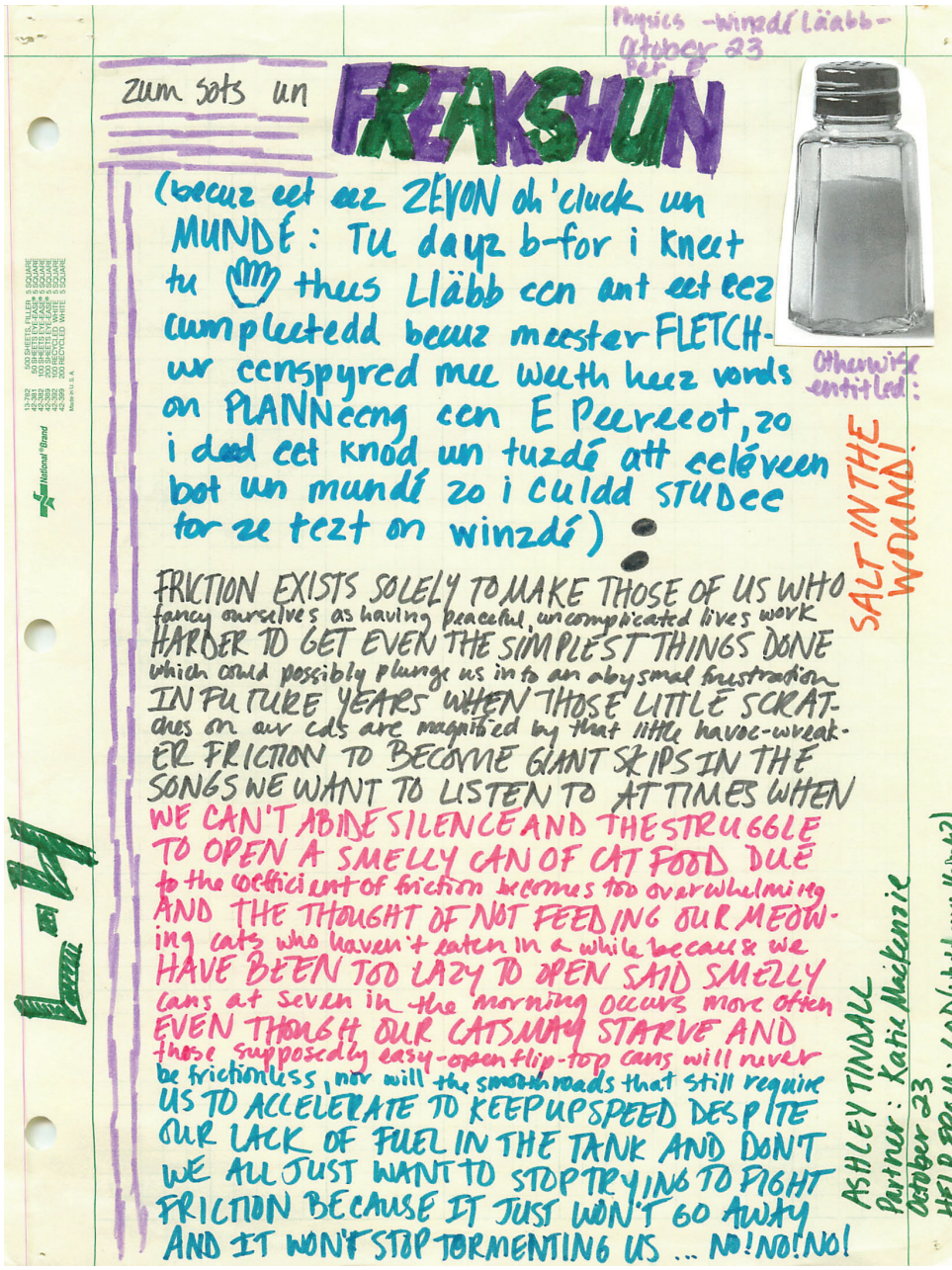
Friction Lab

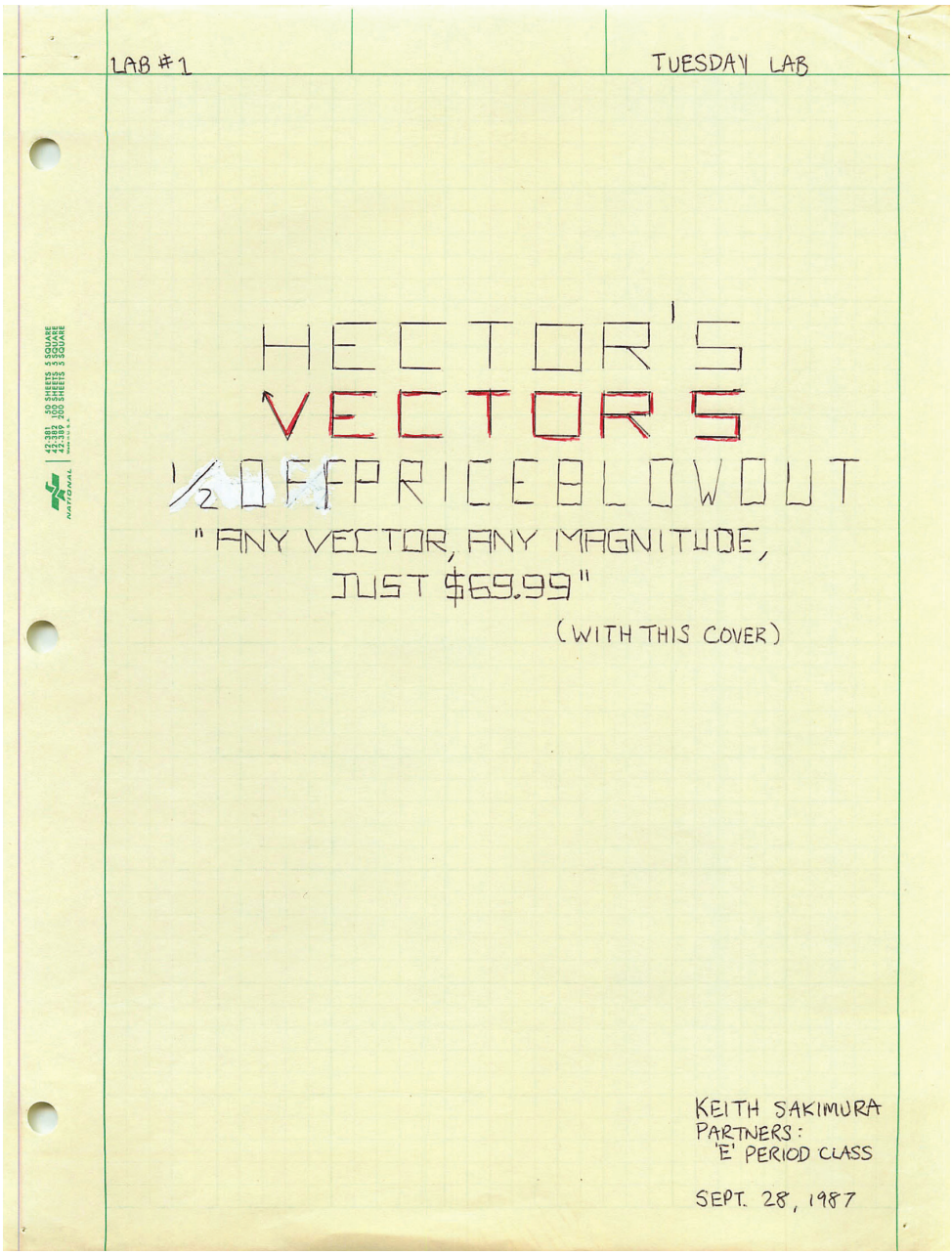
ADVANCED PHYSICS
PERIOD B
FRIDAY LAB

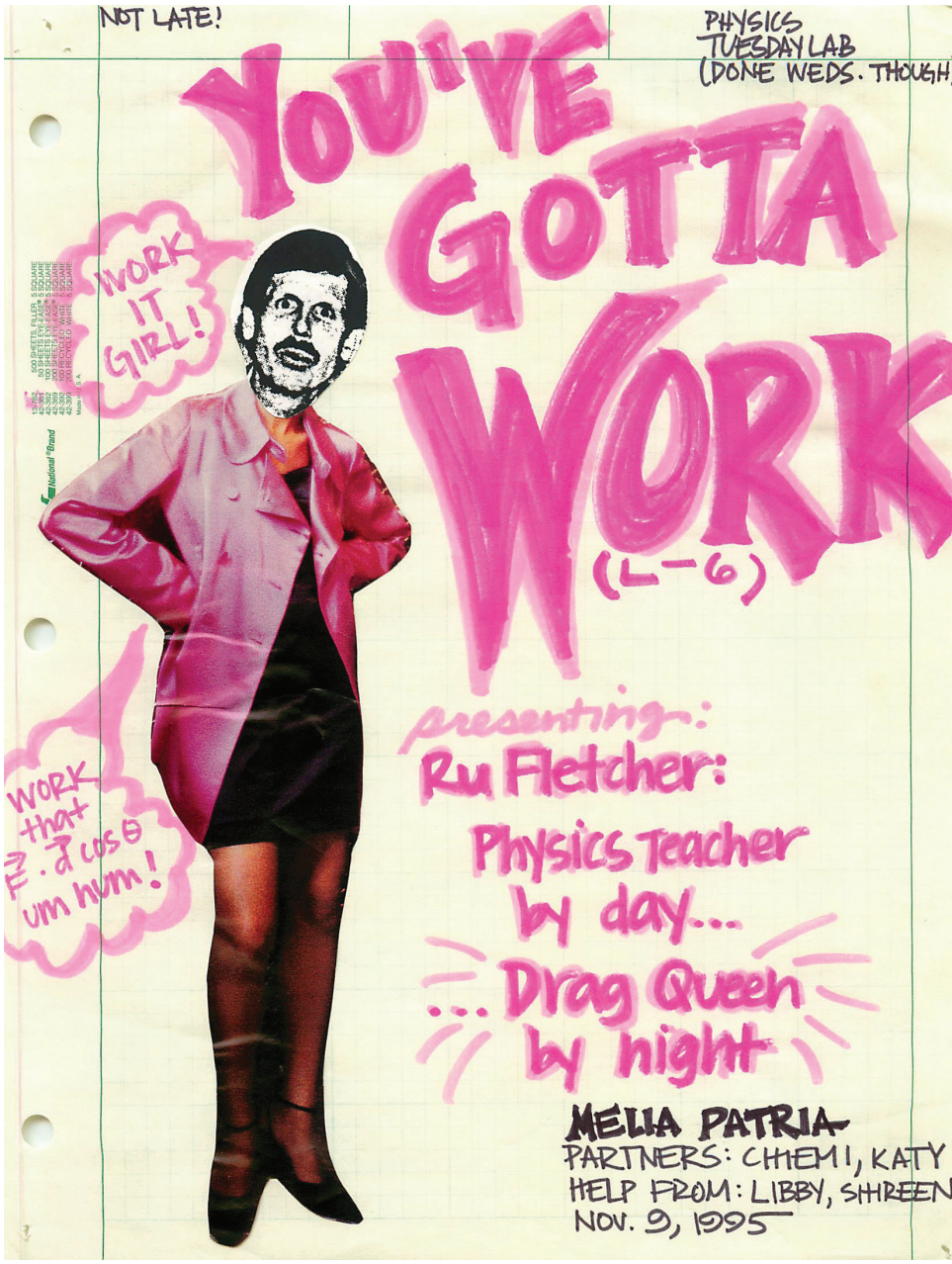
Contrary to popular belief, God, the artist of our world, did not just magically invent the earth and the sea and the fowl that flit through the air or the beasts that locomote along the ground. In fact, he sat down and thought for a very long time about what he wanted the world to be like. Part of his thought process went something like this: "Oh, I do love the way that gravity plays upon the objects that rest upon and above this beautiful orb I think I shall call the earth. But alas, mere gravity is too bland. The minds that shall inhabit my earth deserve more to ponder than merely this force they shall come to know and love as 'mg.' I think I shall introduce other forces...hmmm...maybe something called....FRICTION! It will sometime act as a (what shall I call it...) centripetal force, but this second term will serve the purpose of happily confusing the physical ponderer. Indeed, my little world is becoming much more exciting. Now what more can I do to tax the minds of these people I will call 'humans'...."

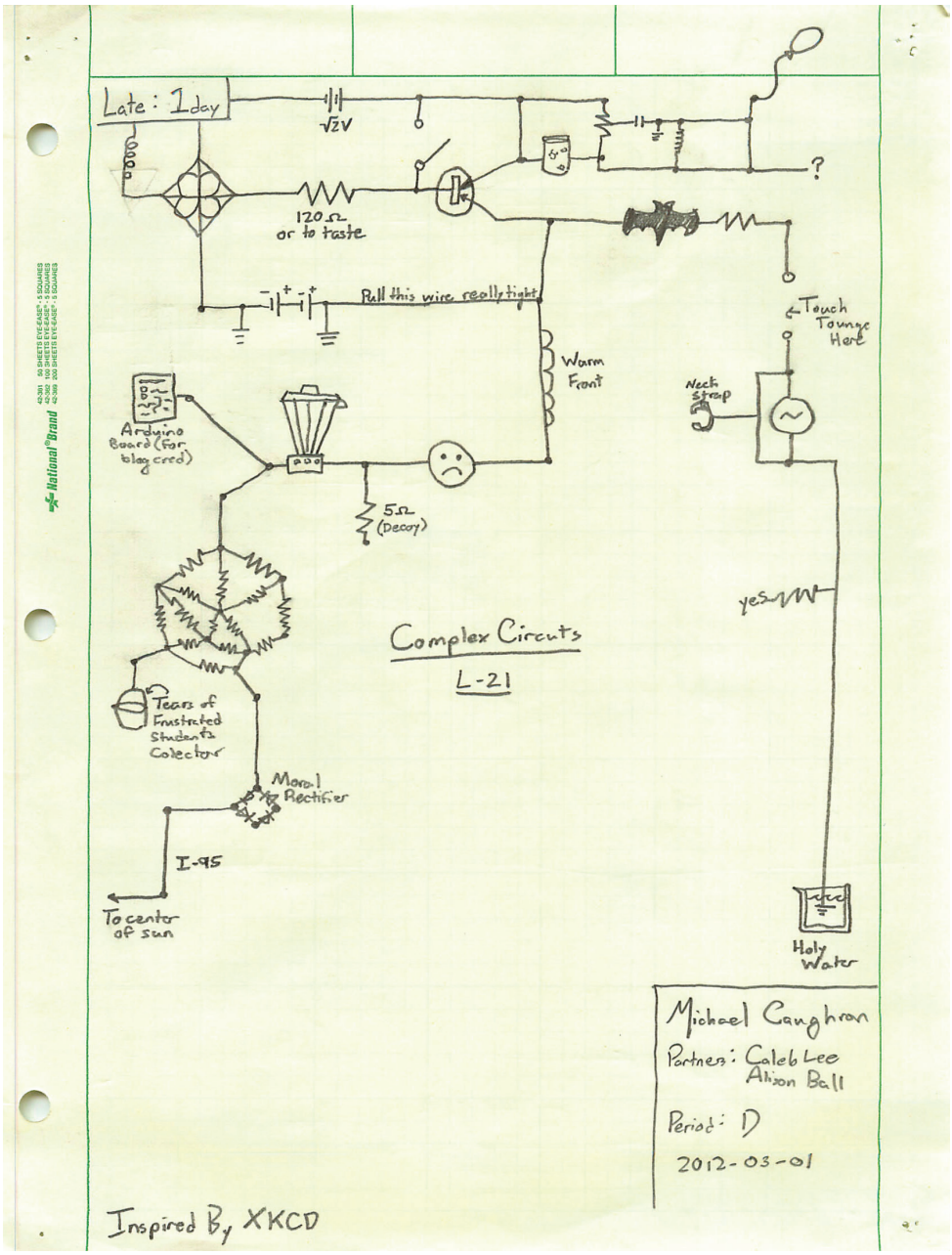


Anna Andresian
Partner: Jennifer Lanski
October 25, 1995

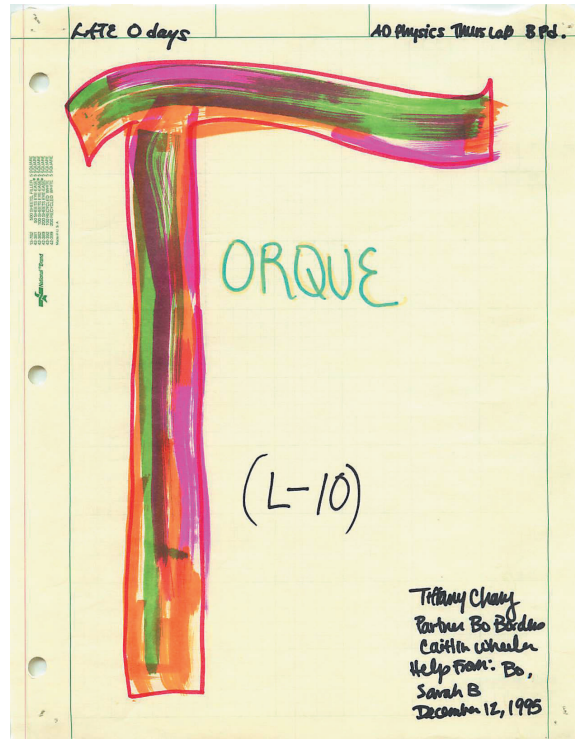

Physics -Winzdé Läabb- October 23
per é
zum sots un FREAKSHUN
(becuz eet eez ZEVON dh'cluck un MUNDÉ: TU dayz b-for i kneet tu thees Lläbb een ant eet eez cumpleetedd becuz meester FLETCH-ur censpyred mee weeth heez vords on PLANNeeng een E Peereeot, zo i ded eet knod un tuzdé att eeléveen bot un mundé zo i culdd STUDee for ze tezt on winzdé).
Otherwise entitled:
SALT IN THE WOUND!
FRICTION EXISTS SOLELY TO MAKE THOSE OF US WHO fancy ourselves as having peaceful, uncomplicated lives work HARDER TO GET EVEN THE SIMPLEST THINGS DONE which could possibly plunge us into an abysmal frustration IN FUTURE YEARS WHEN THOSE LITTLE SCRATCHES on our cds are magnified by that little havoc-wreaker FRICTION TO BECOME GIANT SKIPS IN THE SONGS WE WANT TO LISTEN TO AT TIMES WHEN WE CAN'T ABIDE SILENCE AND THE STRUGGLE TO OPEN A SMELLY CAN OF CAT FOOD DUE to the coefficient of friction becomes too overwhelming AND THE THOUGHT OF NOT FEEDING OUR MEOWing cats who haven't eaten in a while because we HAVE BEEN TOO LAZY TO OPEN SAID SMELLY cans at seven in the morning occurs more often EVEN THOUGH OUR CATS MAY STARVE AND those supposedly easy-open flip-top cans will never be frictionless, nor will the smooth roads that still require US TO ACCELERATE TO KEEP UP SPEED DESPITE OUR LACK OF FUEL IN THE TANK AND DON'T WE ALL JUST WANT TO STOP TRYING TO FIGHT FRICTION BECAUSE IT JUST WON'T GO AWAY AND IT WON'T STOP TORMENTING US ... NO! NO! NO!
ASHLEY TINDALL
Partner: Katie Mackenzie
October 23
HELP FROM: GOD (which was thanks!)


LAB #1
TUESDAY LAB
HECTOR'S
VECTORS
½ OFF PRICE BLOWOUT
"ANY VECTOR, ANY MAGNITUDE,
JUST $69.99"
(WITH THIS COVER)
KEITH SAKIMURA
PARTNERS:
'E' PERIOD CLASS
SEPT. 28, 1987

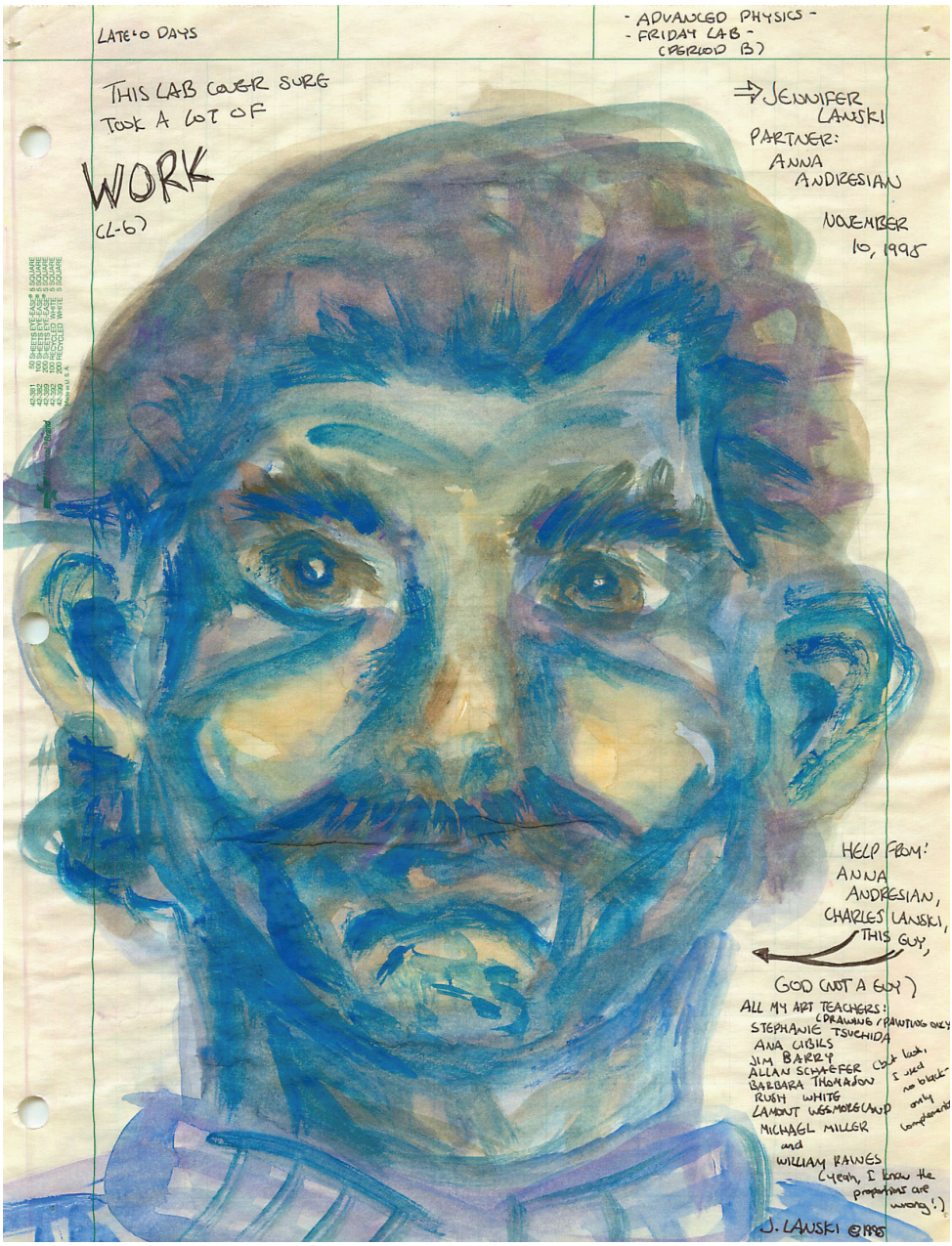

NOT LATE!
PHYSICS TUESDAY LAB (DONE WEDS. THOUGH)
YOU'VE GOTTA WORK
(L-6)
WORK IT GIRL!
WORK that F = d cos θ um hum!
presenting:
Ru Fletcher:
Physics Teacher by day...
...Drag Queen by night
MELIA PATRIA
PARTNERS: CHIEMI, KATY
HELP FROM: LIBBY, SHREEN
NOV. 9, 1995


Late: 1 day
√2V
120Ω or to taste
Pull this wire really tight
Warm Front
Touch Tounge Here
Neck Strap
Arduino Board (for blog cred)
5Ω (decay)
yes
Complex Circuits
L-21
Tears of Frustrated Students Collector
Moral Rectifier
I-95
To center of sun
Holy Water
Michael Canghran
Partners: Caleb Lee
Alison Ball
Period: D
2012-03-01
Inspired By XKCD

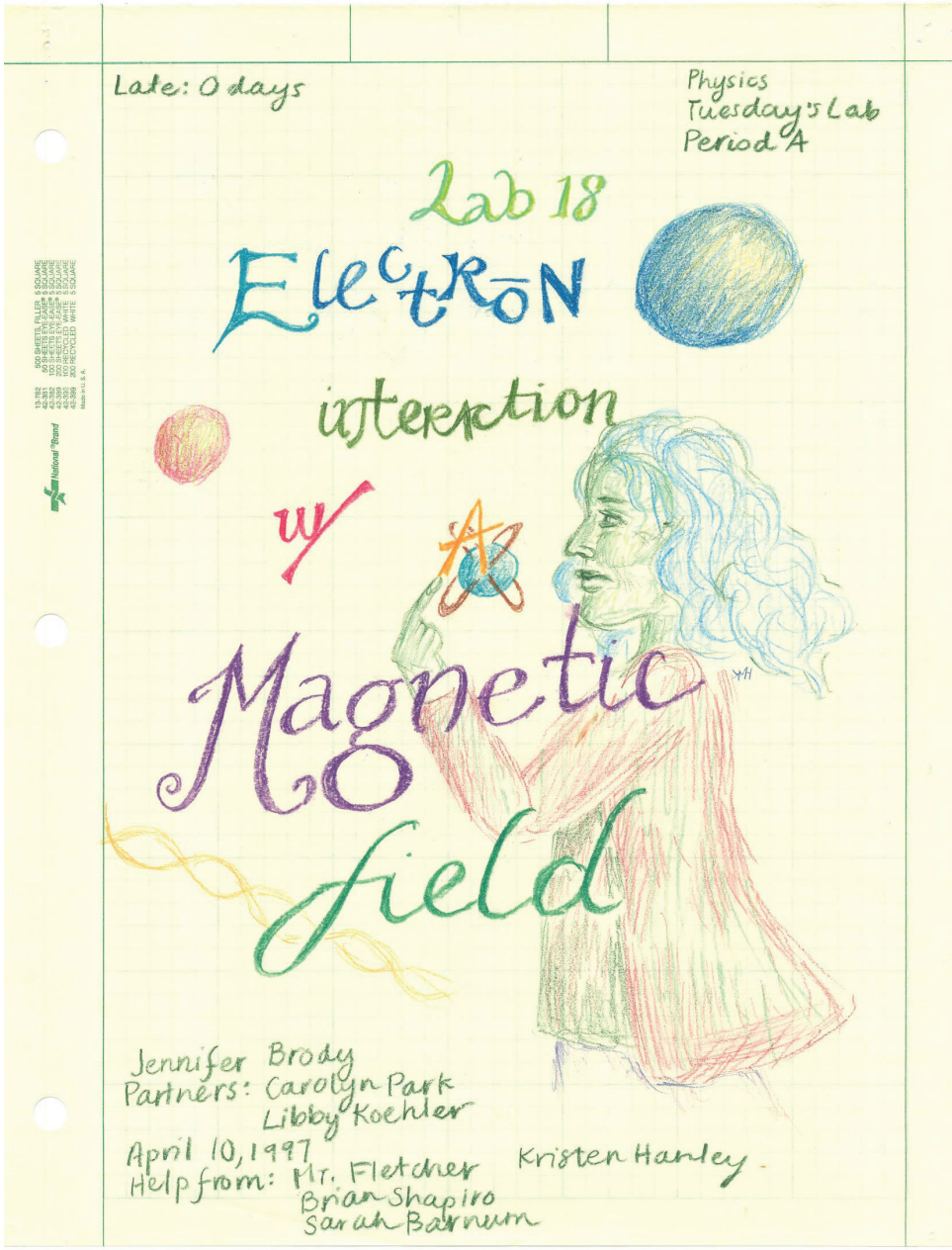
Torque Lab

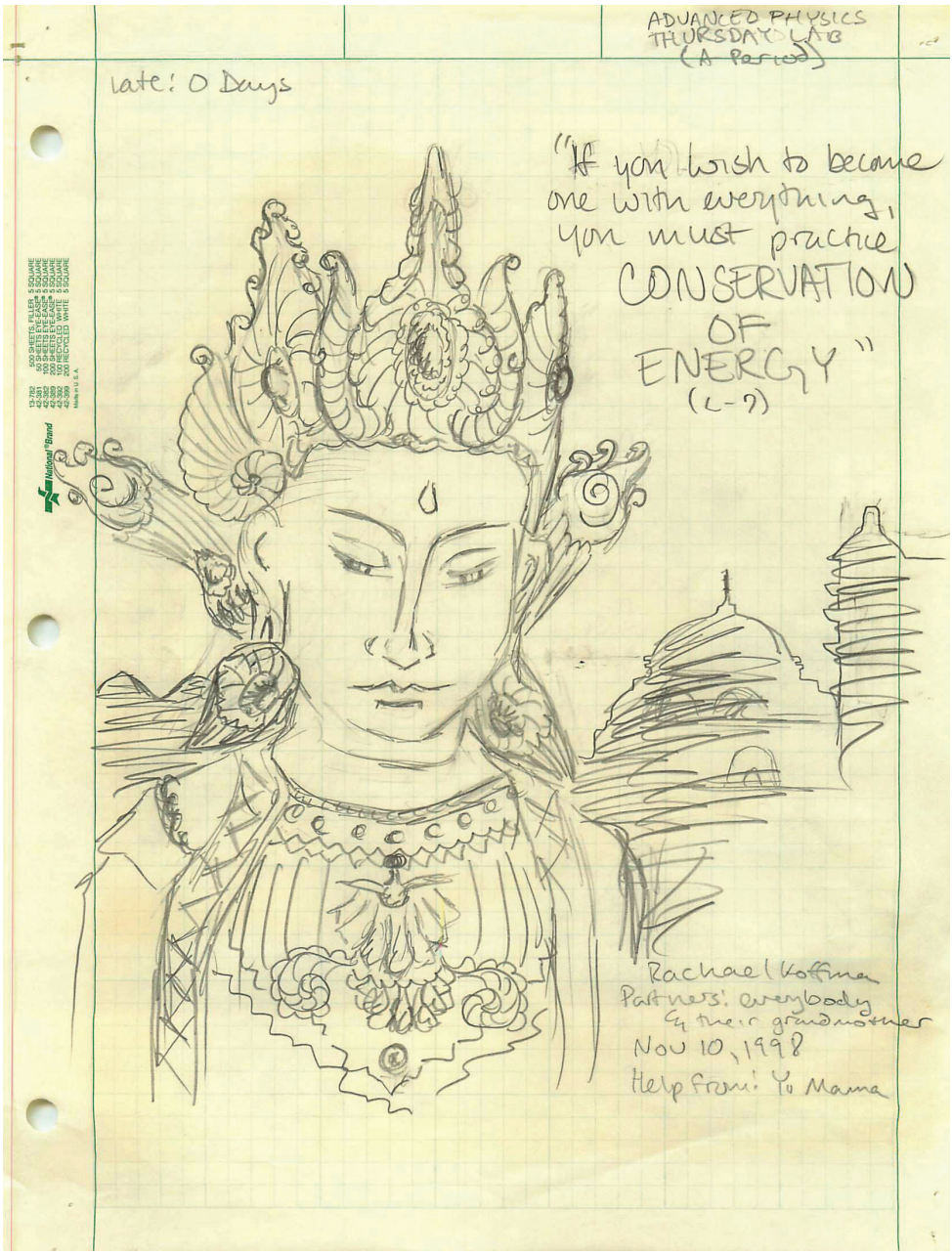


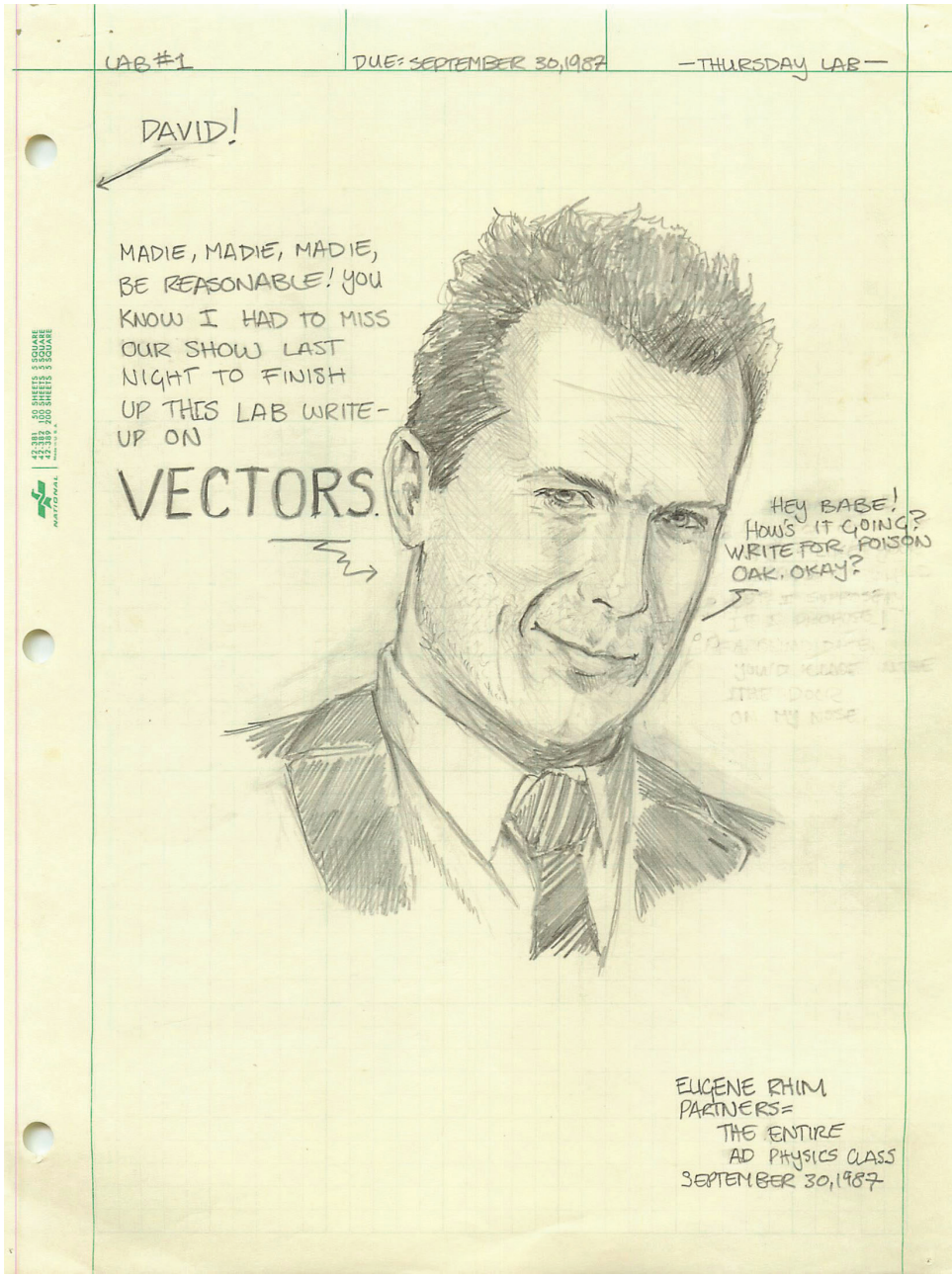
Newton's Second Law Lab

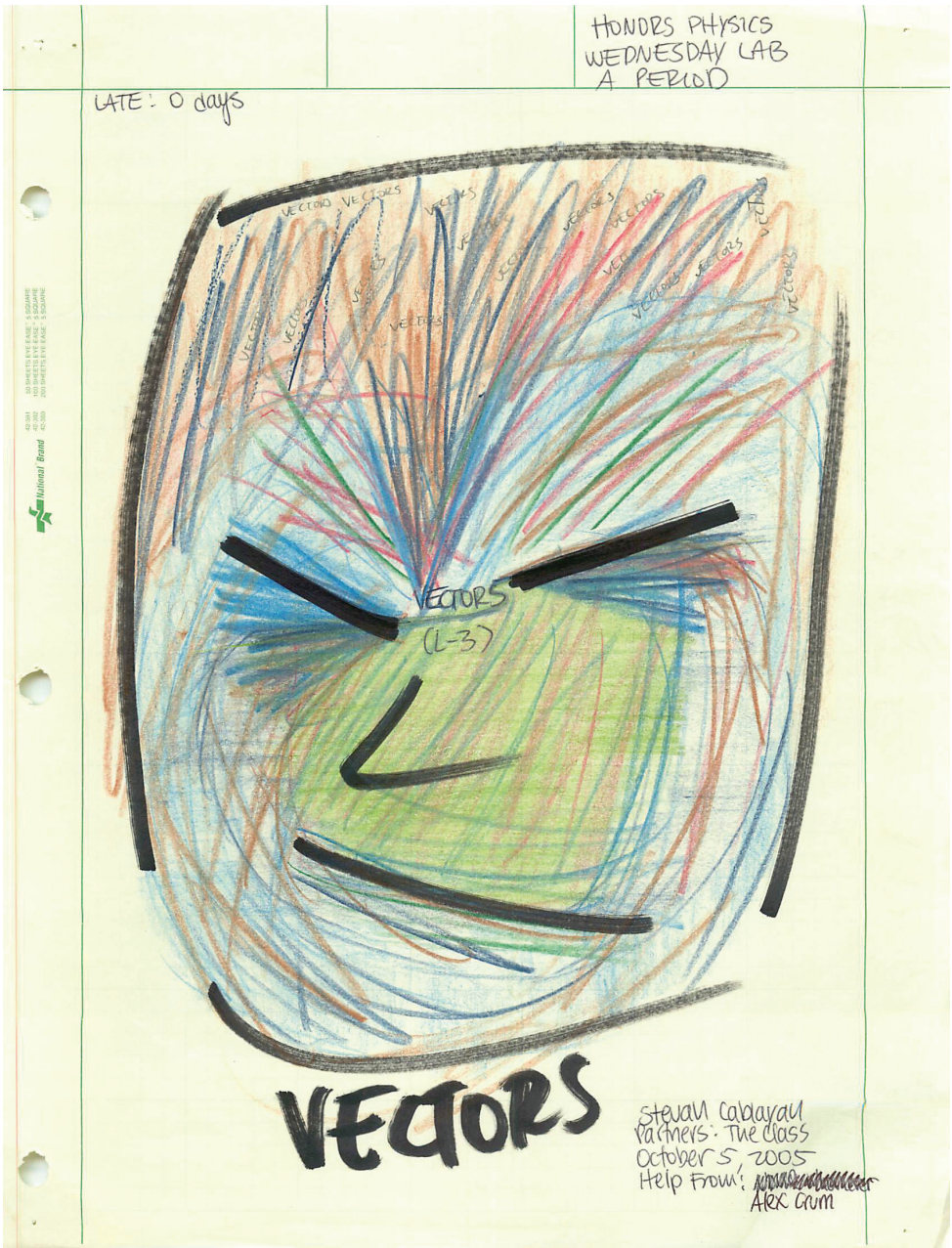

LATE: 0 DAYS
- ADVANCED PHYSICS -
- FRIDAY LAB -
(PERIOD B)
THIS LAB COVER SURG
TOOK A LOT OF
WORK
(L-6)
⇒ JENNIFER LANSKI
PARTNER:
ANNA ANDREASIAN
NOVEMBER 10, 1995
HELP FROM:
ANNA ANDREASIAN,
CHARLES LANSKI,
THIS GUY,
GOD (NOT A GUY)
ALL MY ART TEACHERS:
STEPHANIE TSUCHIDA (DRAWING / PAINTING ONLY)
ANA CIBILS
JIM BARRY
ALLAN SCHAEFER
BARBARA THOMASON
RUSH WHITE
LAMONT WEGMOEGLAND
MICHAEL MILLER
and
WILLIAM RAINES
(yeah, I know the proportions are wrong :)
J. LANSKI ©1995

Electron Interaction with a Magnetic Field Lab

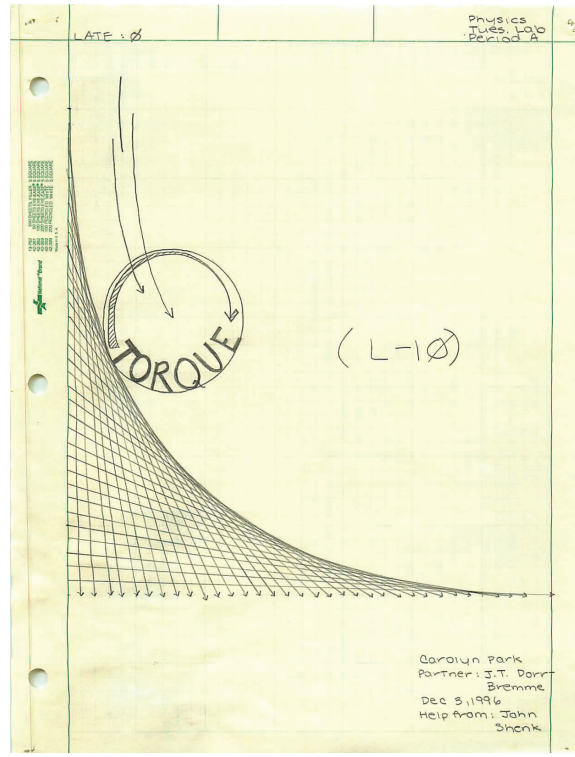


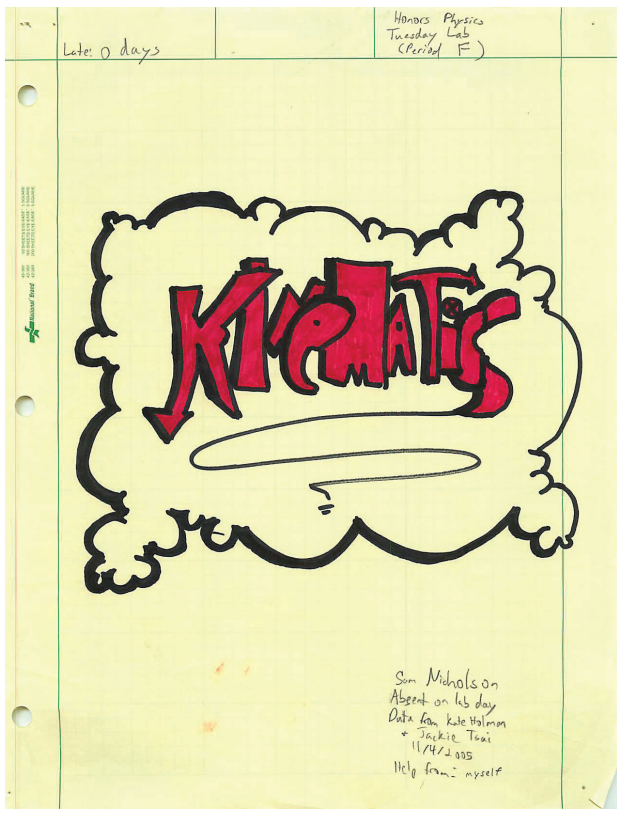

ADVANCED PHYSICS
THURSDAY LAB
(A Period)
late! 0 Days
"If you wish to become one with everything, you must practice CONSERVATION OF ENERGY"
(L-7)
Rachael Koffman
Partners: everybody & their grandmother
Nov 10, 1998
Help from: Yo Mama


LAB #1
DUE: SEPTEMBER 30, 1987
—THURSDAY LAB—
DAVID!
MADIE, MADIE, MADIE, BE REASONABLE! YOU KNOW I HAD TO MISS OUR SHOW LAST NIGHT TO FINISH UP THIS LAB WRITE-UP ON
VECTORS.
HEY BABE! HOW'S IT GOING? WRITE FOR POISON OAK. OKAY?
EUGENE RHIM
PARTNERS=
THE ENTIRE
AP PHYSICS CLASS
SEPTEMBER 30, 1987

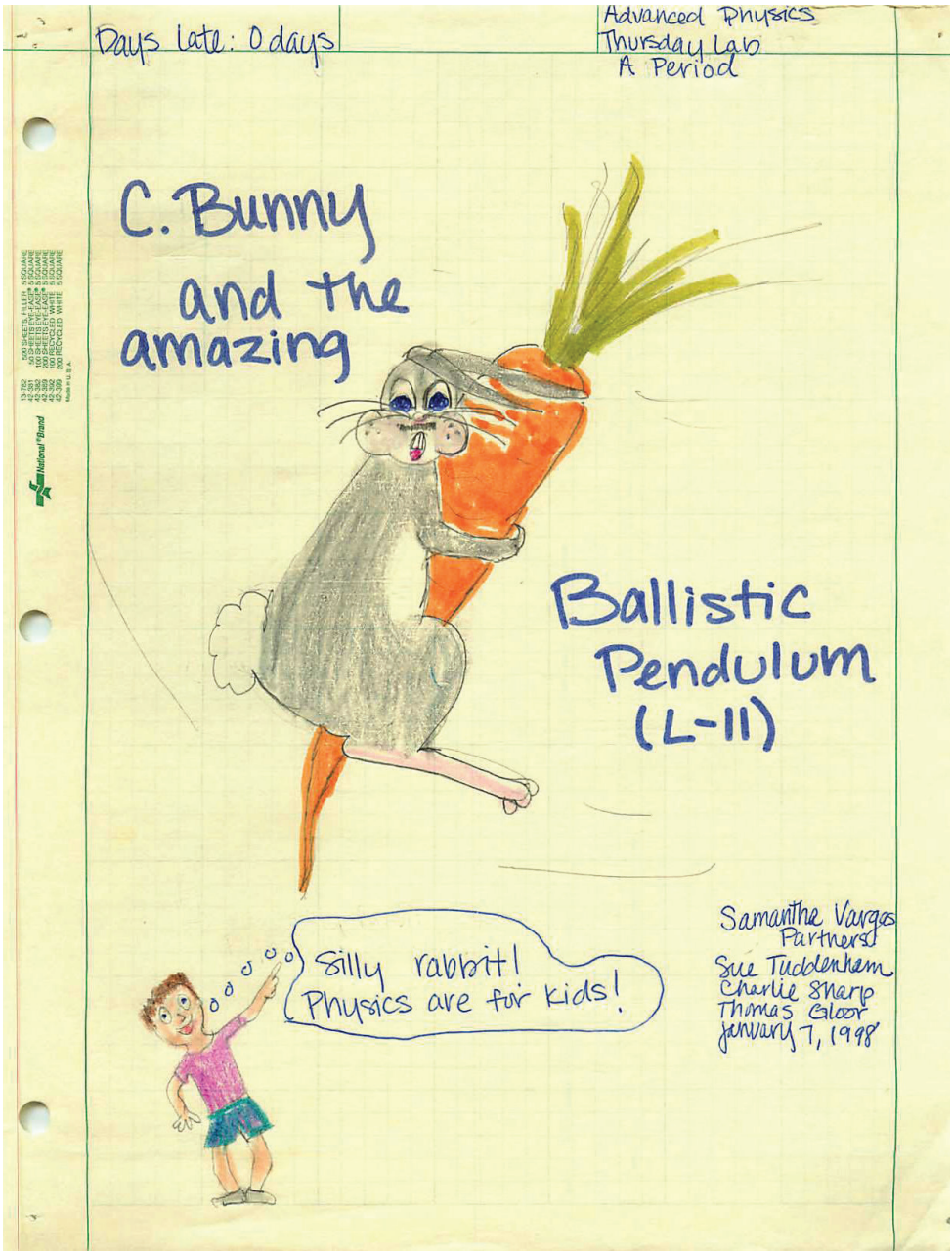

HONORS PHYSICS
WEDNESDAY LAB
A PERIOD
LATE: 0 days
VECTORS
(L-3)
VECTORS
Steven Cabayan
Partners: The Class
October 5, 2005
Help From:
Alex Gum

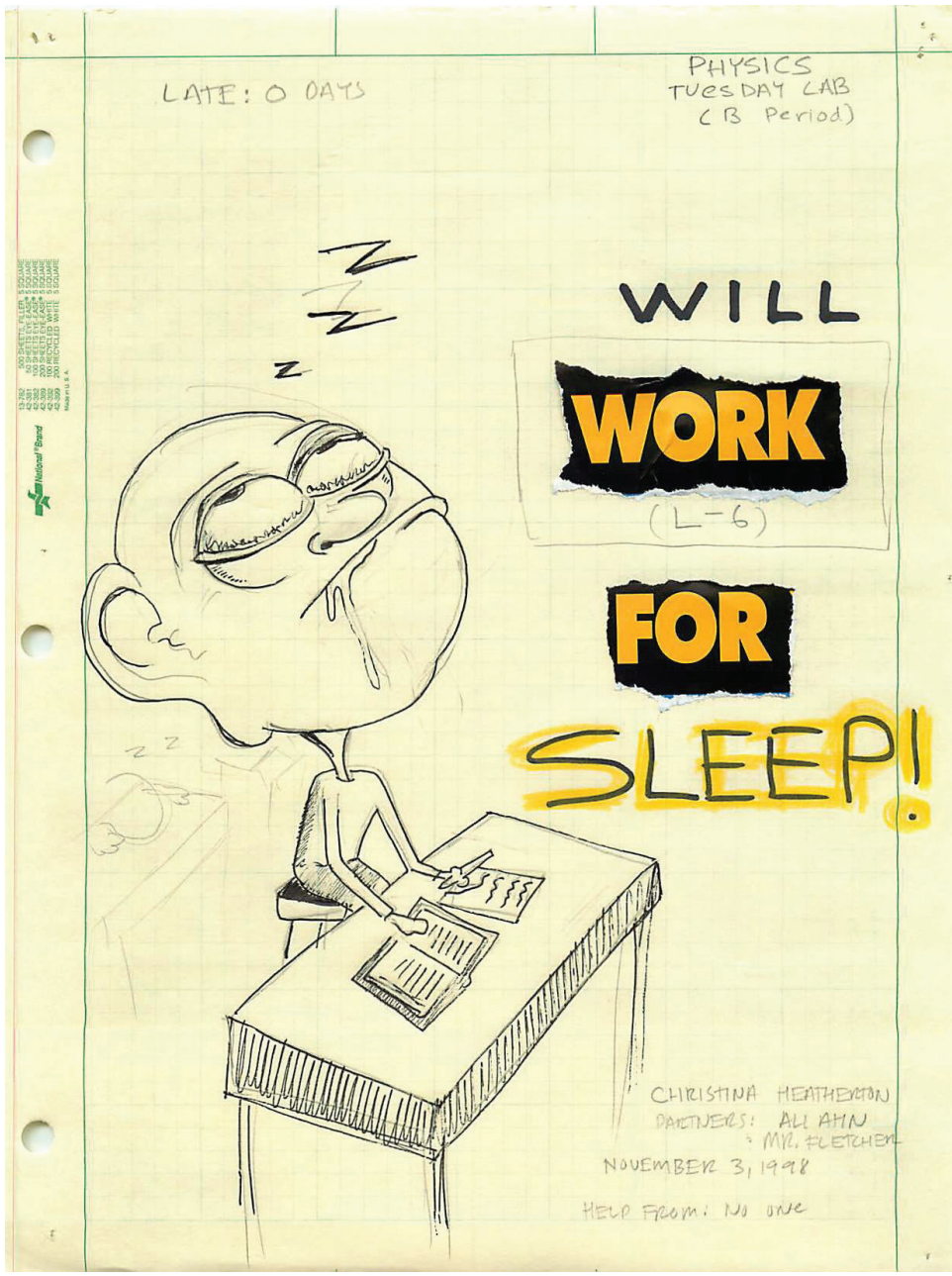
Torque Lab



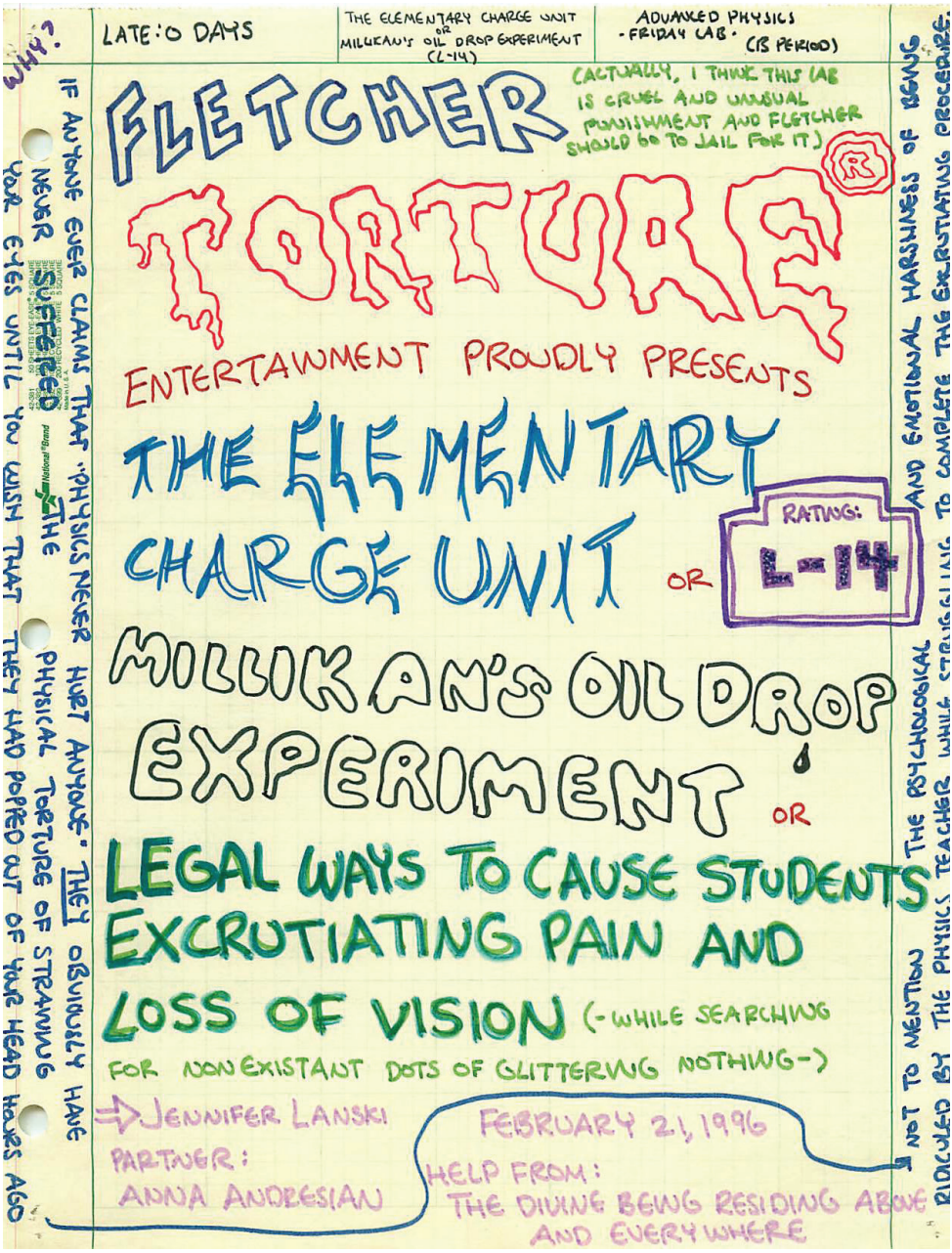


Kinematics Lab

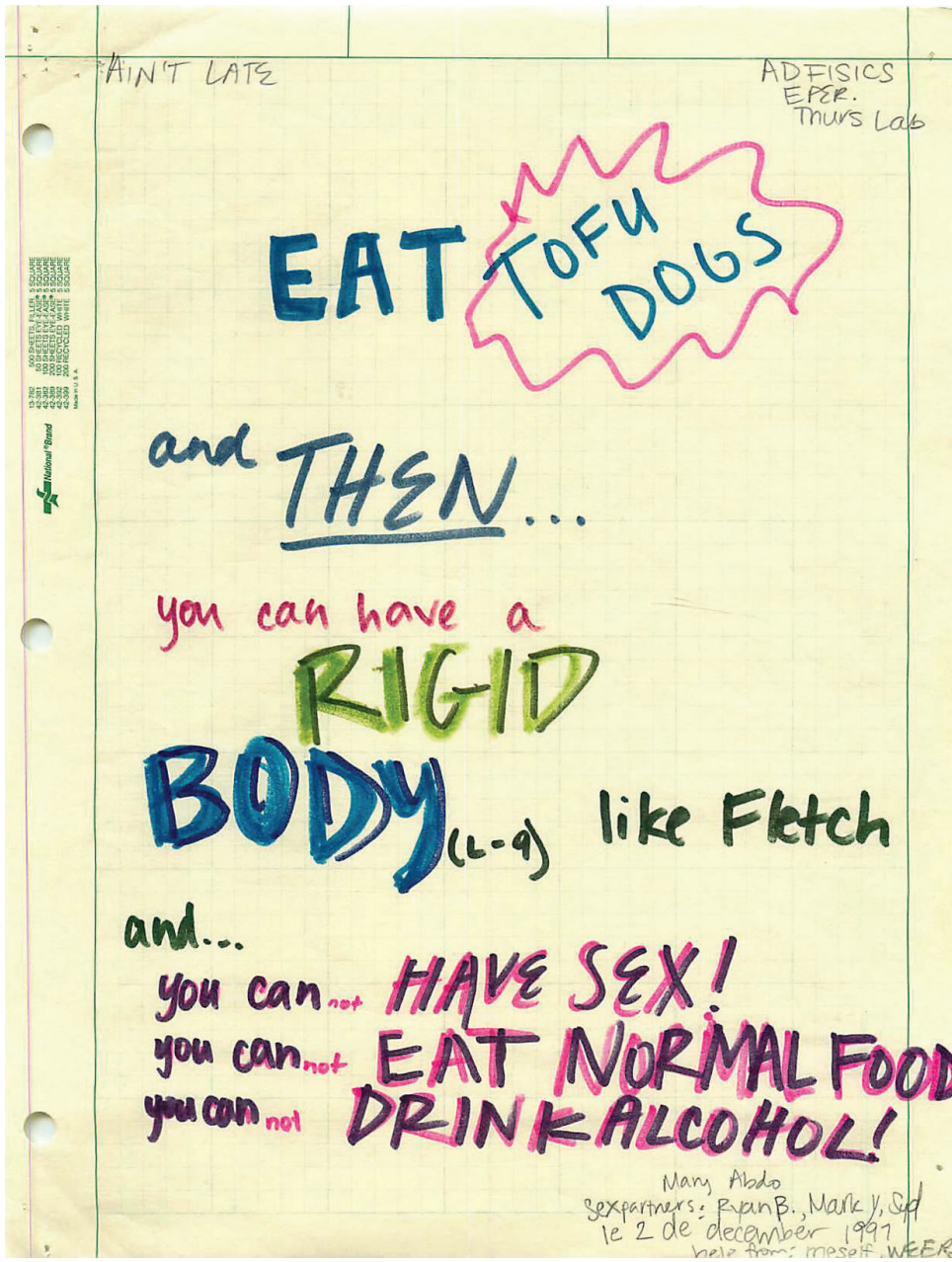

Days late: 0 days
Advanced Physics
Thursday Lab
A Period
C. Bunny and the amazing
Ballistic Pendulum (L-11)
Silly rabbit! Physics are for kids!
Samantha Vargas
Partners!
Sue Tuddenham
Charlie Sharp
Thomas Gloor
January 7, 1998

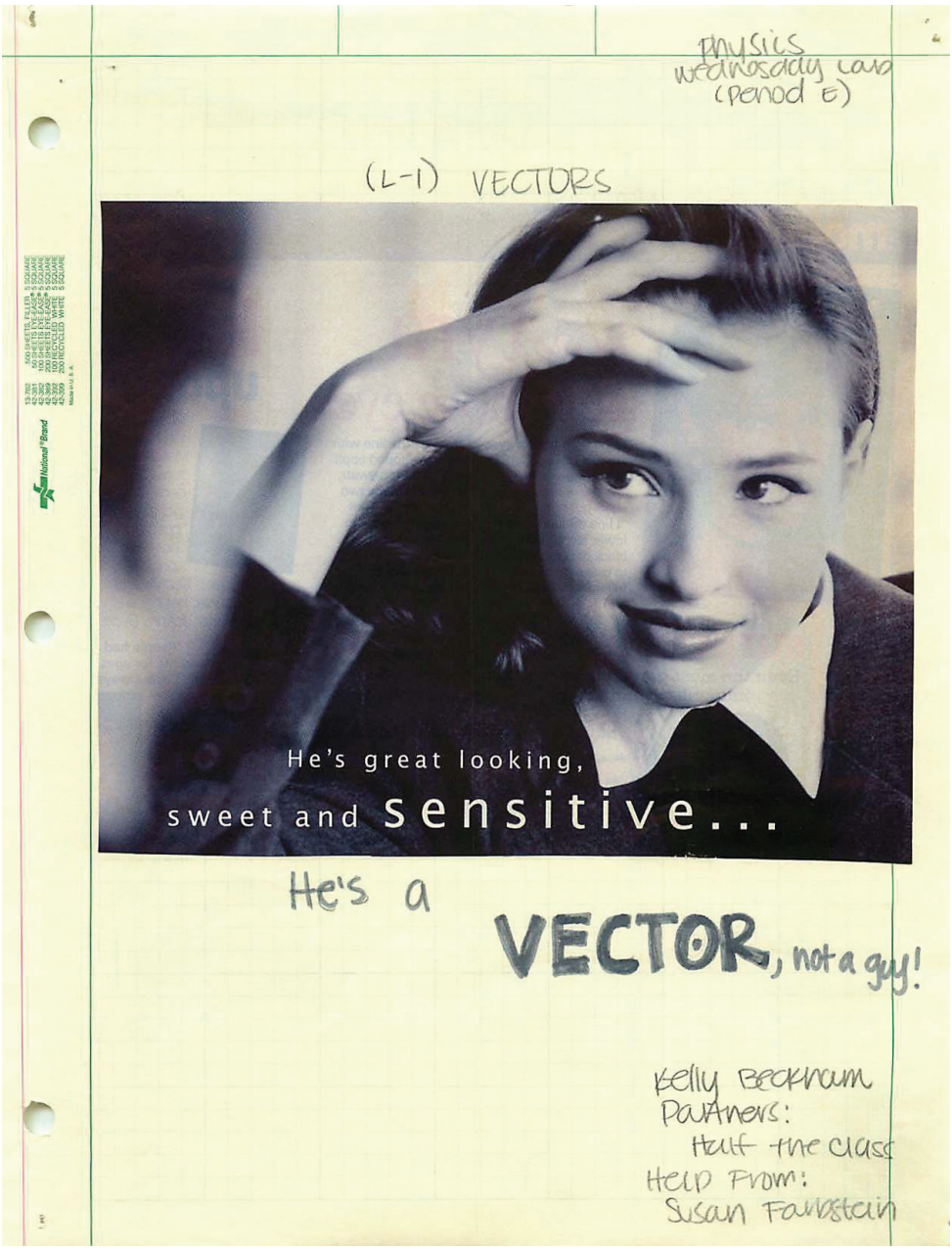

LATE: 0 DAYS
PHYSICS
TUESDAY LAB
(B Period)
WILL
WORK
(L-6)
FOR
SLEEP!
CHRISTINA HEATHERTON
PARTNERS: ALI AHN
MR. FLETCHER
NOVEMBER 3, 1998
HELP FROM: NO ONE

Millikan Oildrop Lab

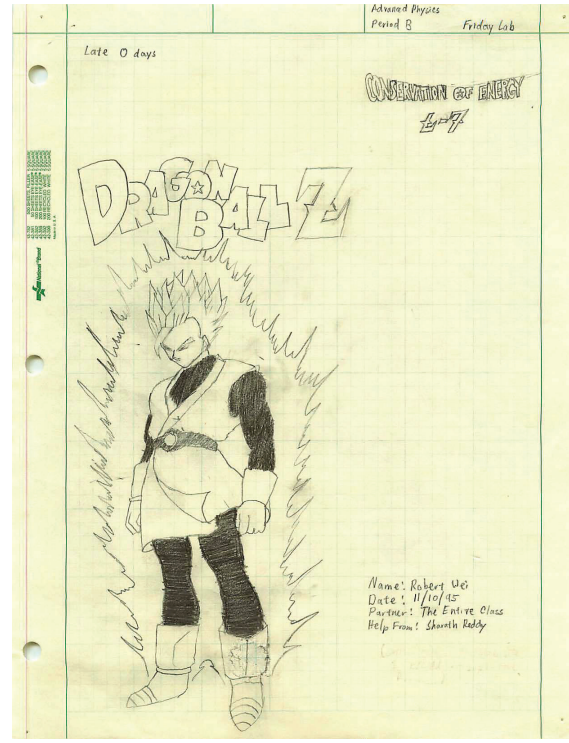


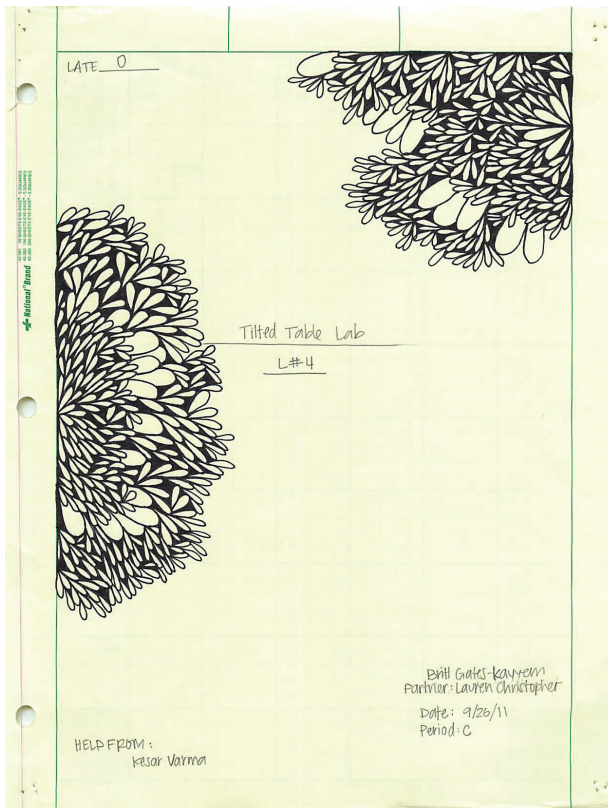
Rigid Body Lab (notice the tiny *not* after each *can* at the bottom)



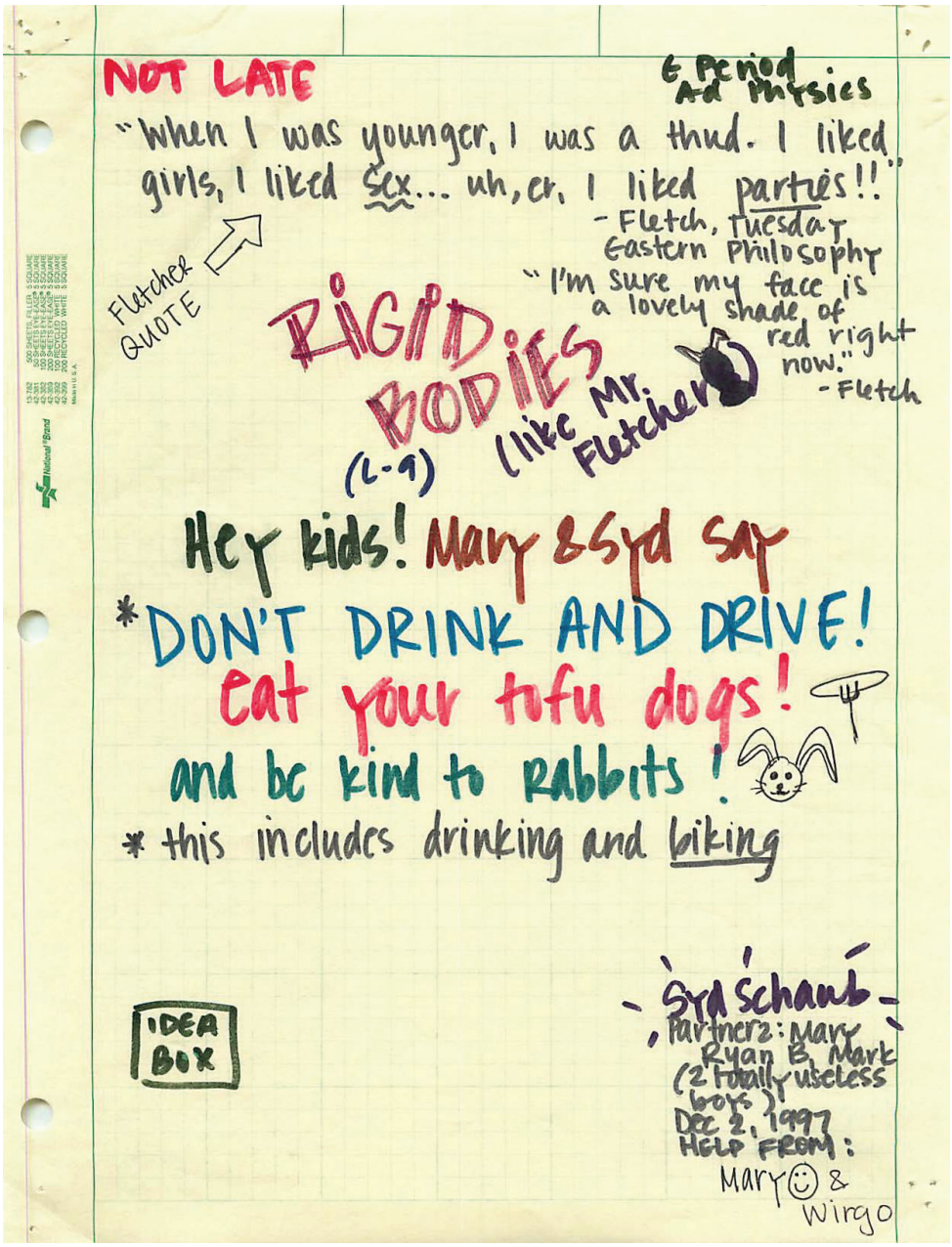

PHYSICS
WEDNESDAY LAB
(PERIOD E)
(L-1) VECTORS
He's great looking,
sweet and sensitive...
He's a
VECTOR, not a guy!
Kelly Beckham
Partners:
Half the class
Help From:
Susan Fainstein

Conservation of Energy Lab



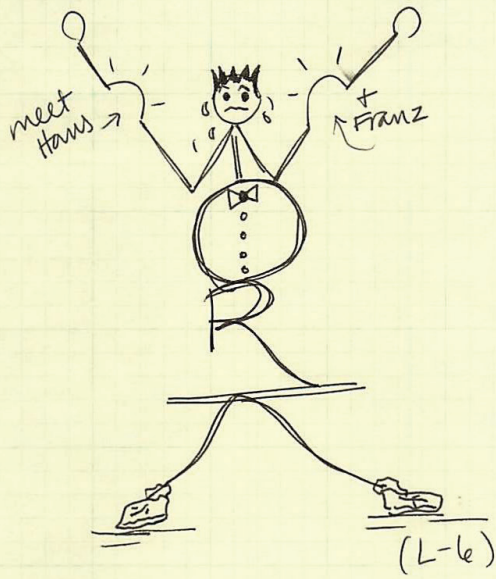


Tilted Table Lab

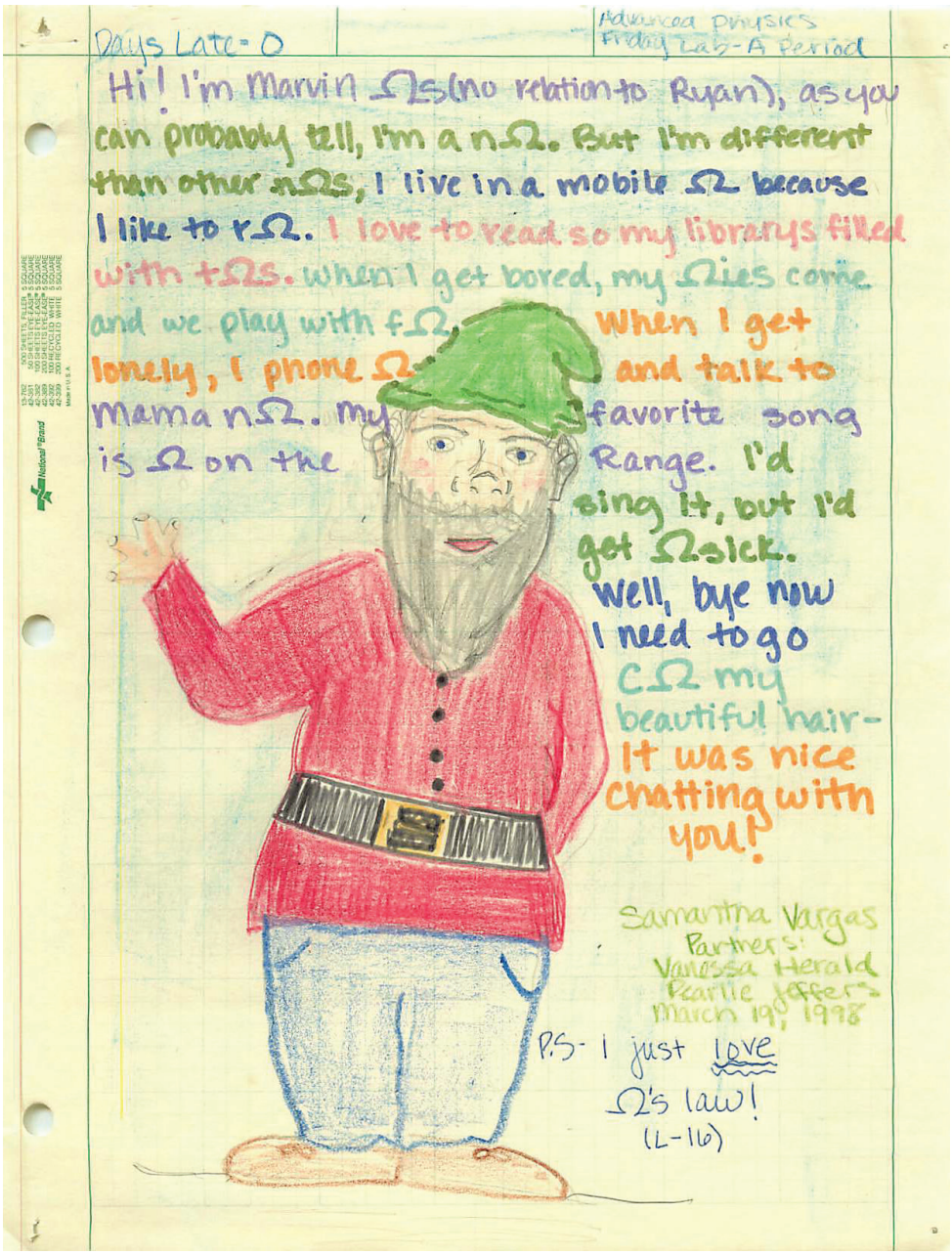

NOT LATE
6 Period
Ad Physics
"When I was younger, I was a thud. I liked girls, I liked sex... uh, er, I liked parties!!"
- Fletch, Tuesday Eastern Philosophy
Fletcher QUOTE
"I'm sure my face is a lovely shade of red right now."
- Fletch
RIGID BODIES
(L-9)
(like Mr. Fletcher)
Hey kids! Mary & Syd say
*DON'T DRINK AND DRIVE!
eat your tofu dogs!
and be kind to Rabbits!
* this includes drinking and biking
IDEA BOX
Syd Schaub
Partner: Mary Ryan B, Mark (2 totally useless boys)
Dec 2, 1997
HELP FROM:
Mary ☺ &
Virgo

LATE: 0 days

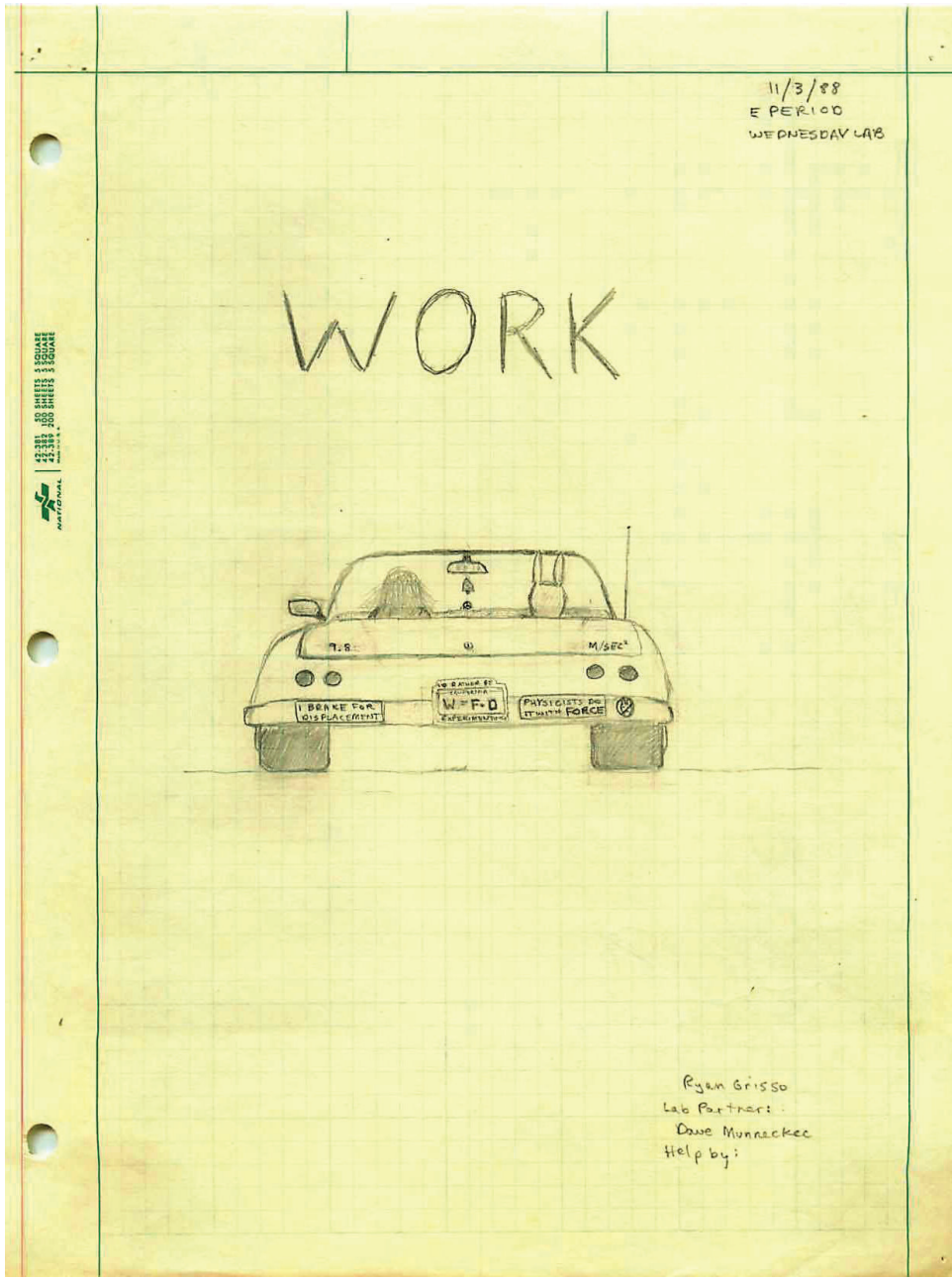
PHYSICS
TUES lab
B Per.



⇒ AUDREY KIM
Partners:
Jackie Q.
November 5, 1997
Help From:
Jackie Q,
Fricka L.


Days Late - 0
Advanced Physics
Friday Lab - A Period
Hi! I'm Marvin ΩΩs (no relation to Ryan), as you can probably tell, I'm a nΩ. But I'm different than other nΩs, I live in a mobile Ω because I like to rΩ. I love to read so my librarys filled with tΩs. When I get bored, my Ωies come and we play with fΩ. When I get lonely, I phone Ω and talk to Mama nΩ. my favorite song is Ω on the Range. I'd sing it, but I'd get Ωsick. Well, bye now I need to go CΩ my beautiful hair - It was nice chatting with you!
Samantha Vargas
Partners:
Vanessa Herald
Pearlie Jeffers
March 19, 1998
P.S - I just love Ω's law!
(L-16)

Work Lab (notice the wabbit in the passenger seat)



Potential and Electric Fields of a Flat Conducting Disk Lab

DAYS LATE: 0

AP PHYSICS
FRIDAY LAB
E PERIOD

tHE potentiaL and eLectricaL fieLds of a fLat, finite, conducting disk
a.k.a.

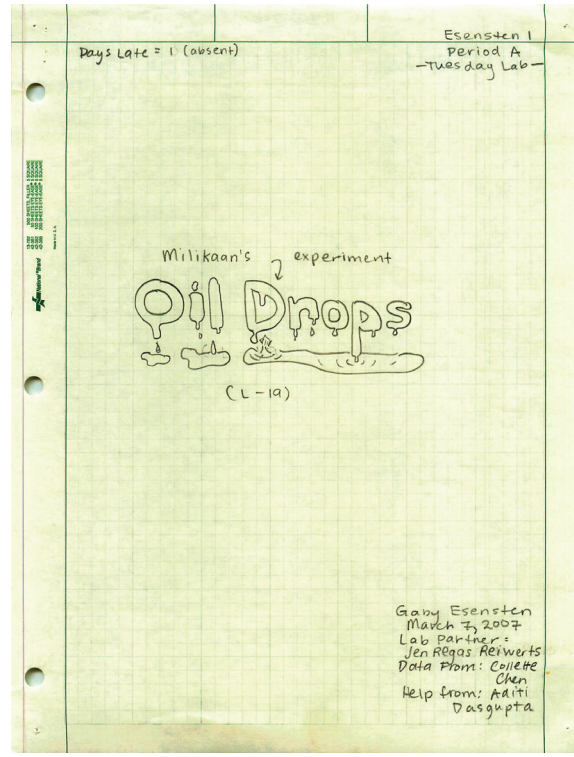
HELLLL!

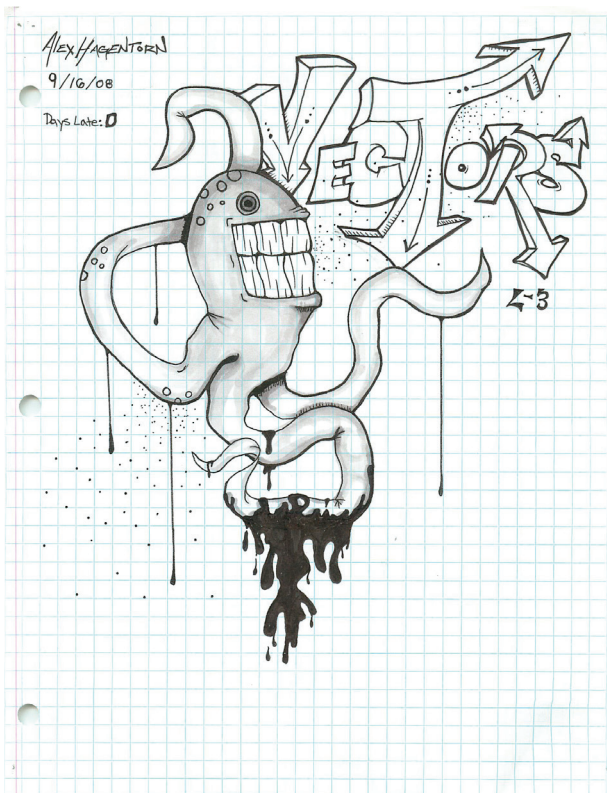
(L-15)

Put out the flames, quick before Pearlie is burned to a bacon-like crisp!

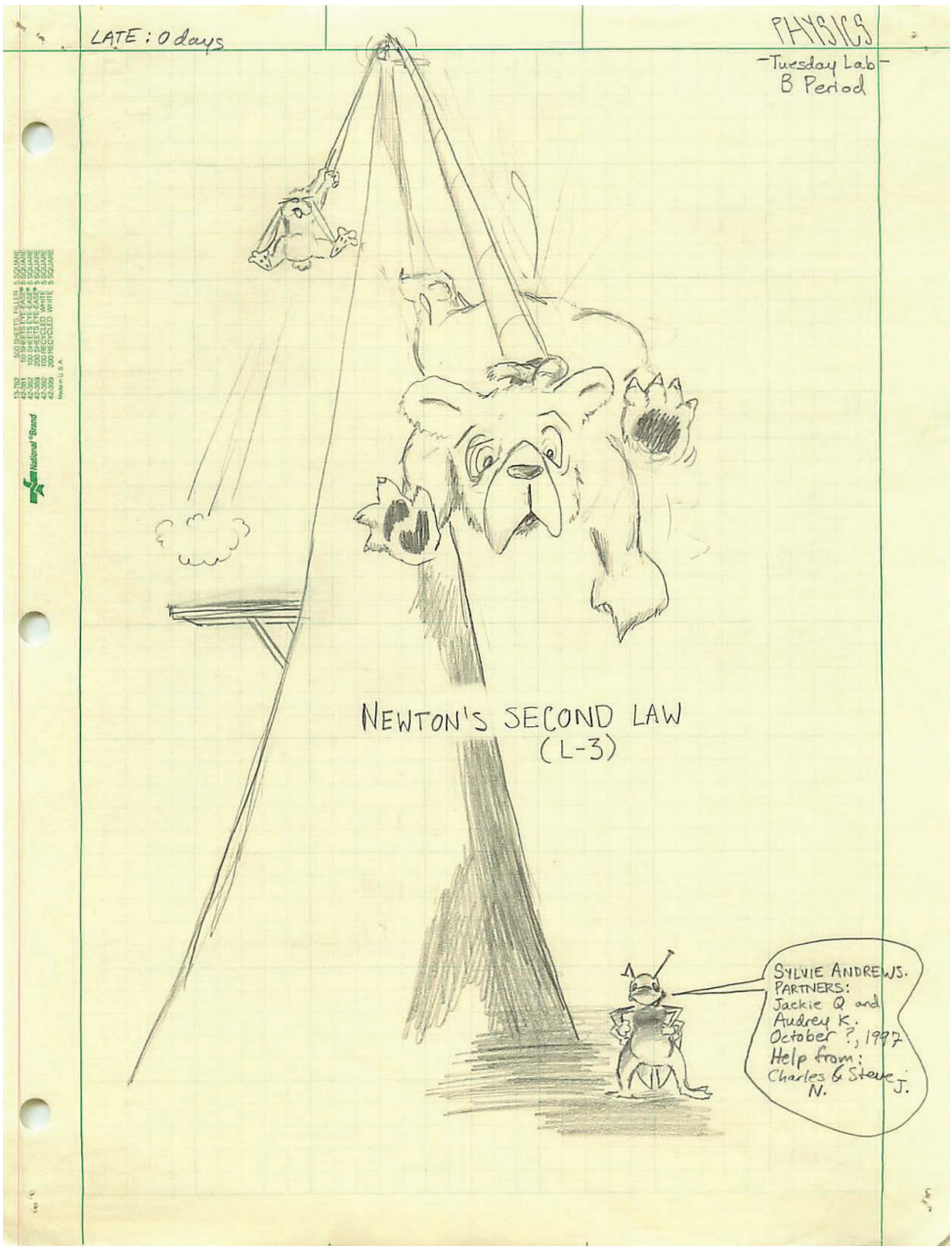
PEARLIE JEFFERS
PARTNERS: YALL
MARCH 11, 1998
HELP FROM: FRICKA

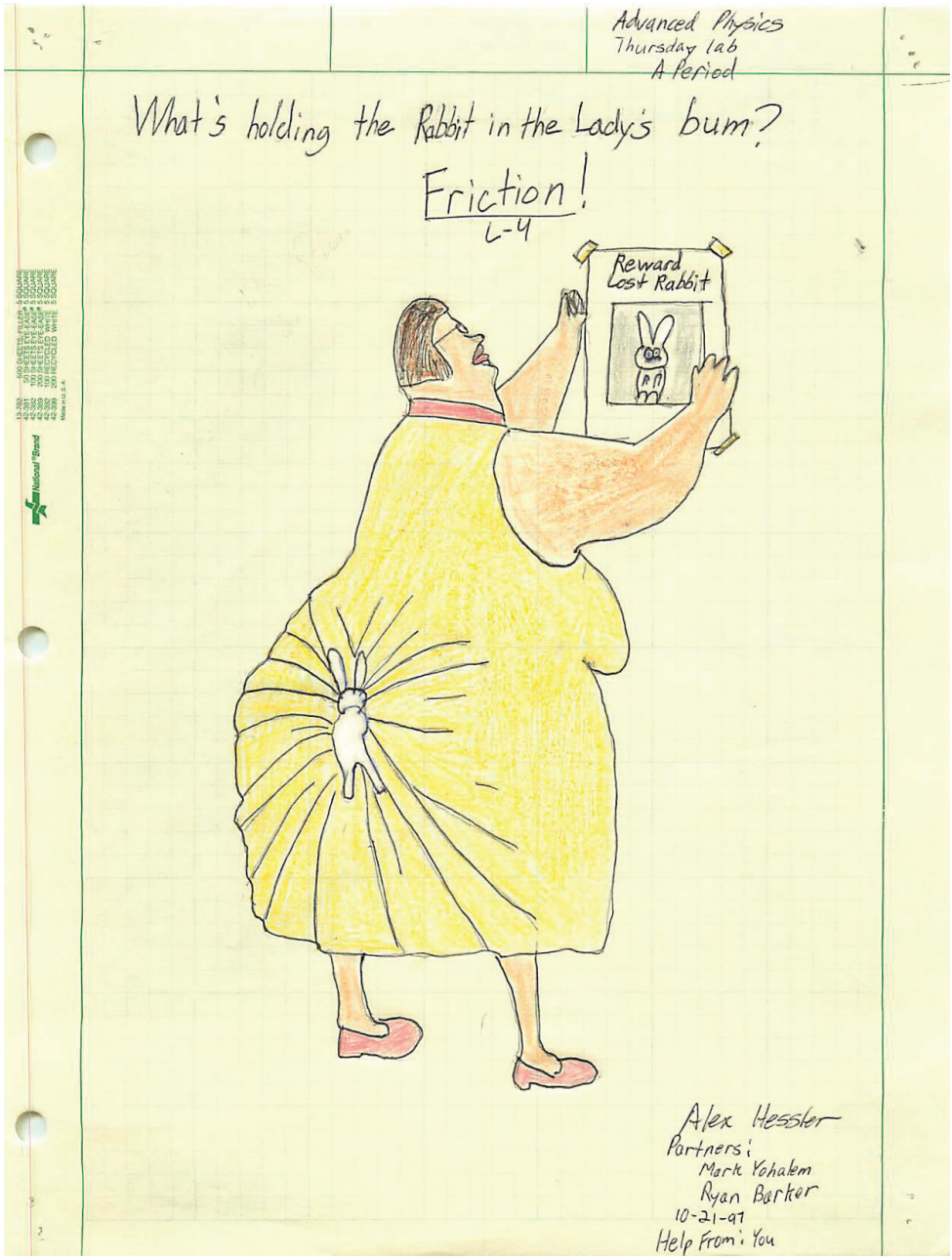
Millikan Oildrop Lab

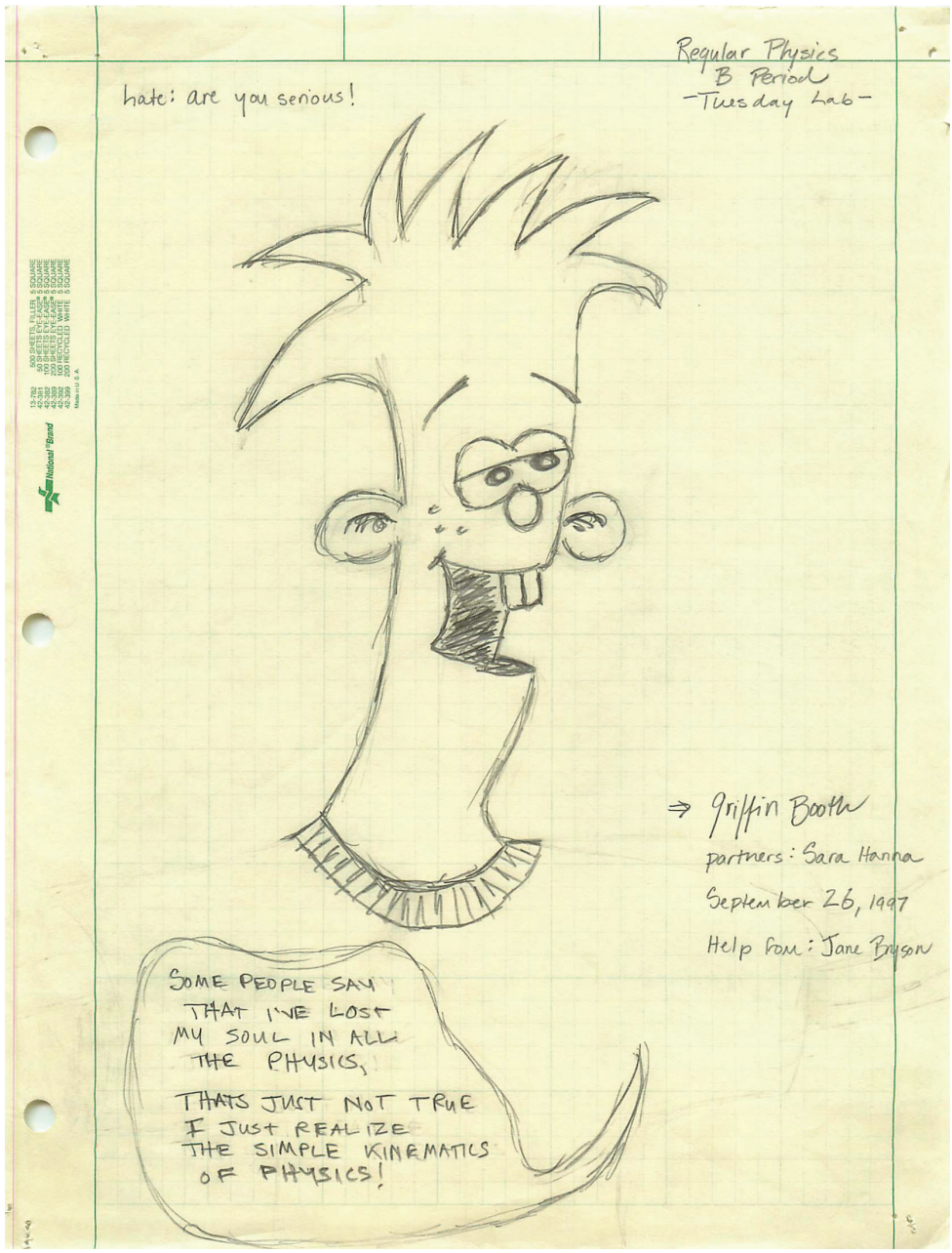




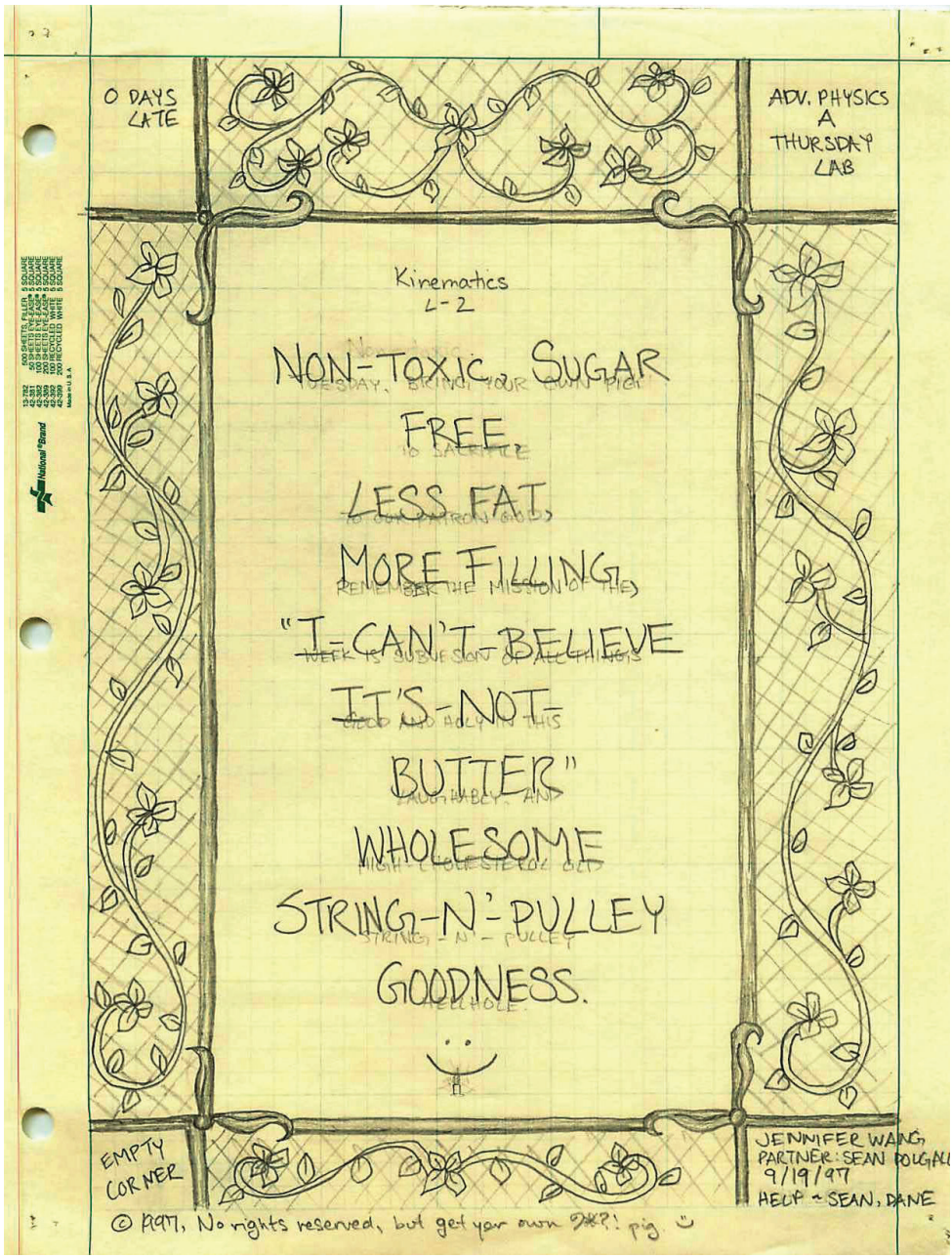
Vectors Lab

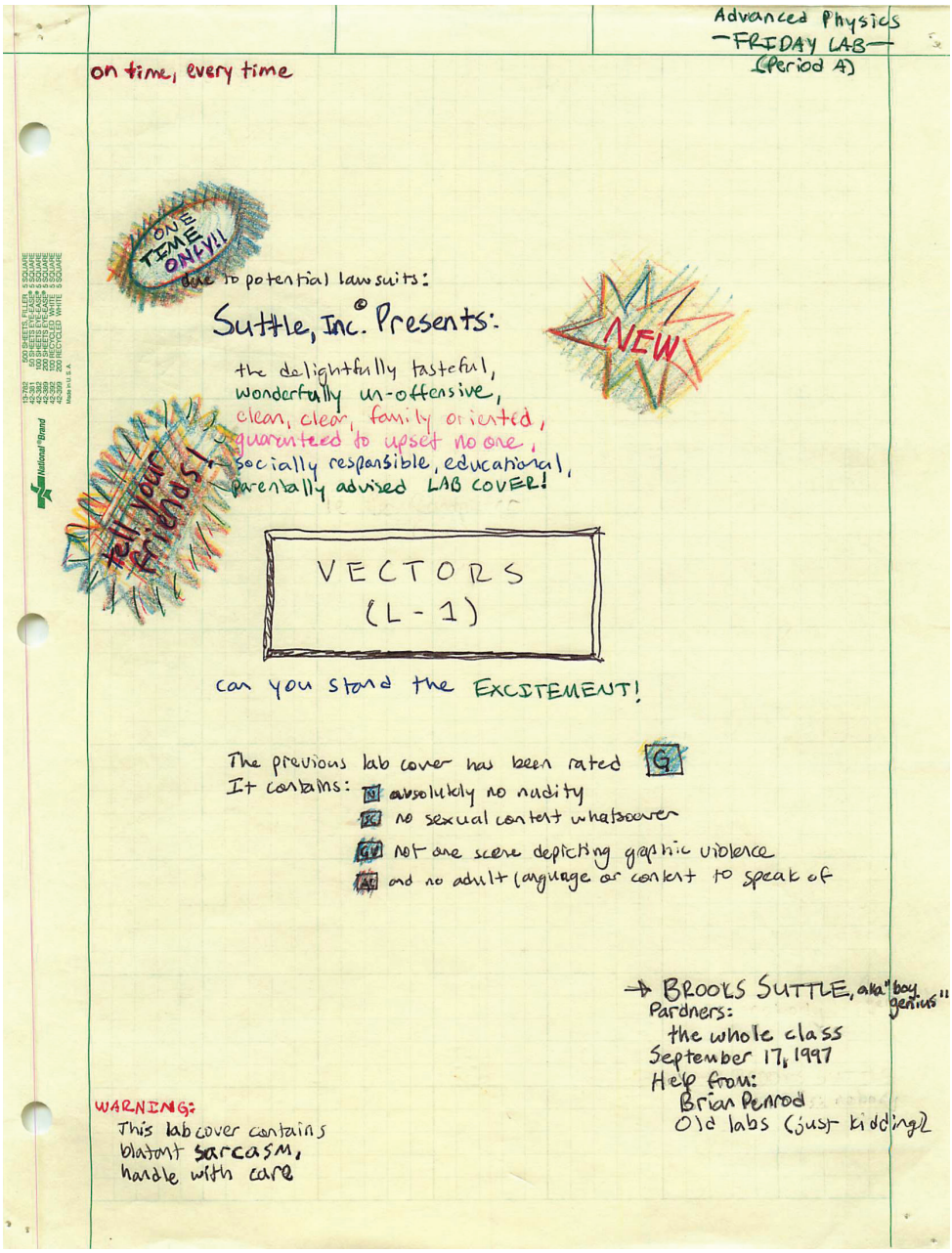

LATE: 0 days
PHYSICS
-Tuesday Lab-
B Period
NEWTON'S SECOND LAW
(L-3)
SYLVIE ANDREWS.
PARTNERS:
Jackie Q and
Audrey K.
October ?, 1997
Help from:
Charles N. & Steve J.


Advanced Physics
Thursday lab
A Period
What's holding the Rabbit in the Lady's bum?
Friction!
L-4
Reward
Lost Rabbit
Alex Hessler
Partners:
Mark Yohalem
Ryan Barker
10-21-97
Help From: You

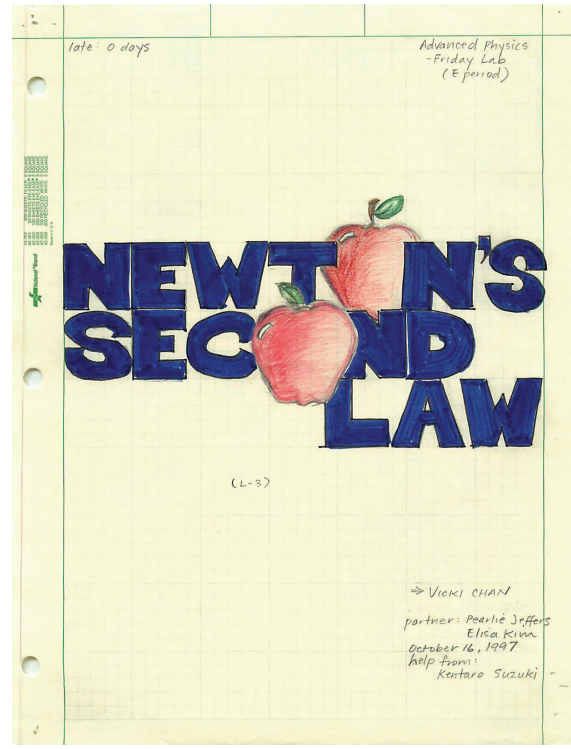

Regular Physics
B Period
-Tuesday Lab-
hate: are you serious!
⇒ Griffin Booth
partners: Sara Hanna
September 26, 1997
Help from: Jane Bryson
SOME PEOPLE SAY THAT I'VE LOST MY SOUL IN ALL THE PHYSICS,
THATS JUST NOT TRUE I JUST REALIZE THE SIMPLE KINEMATICS OF PHYSICS!

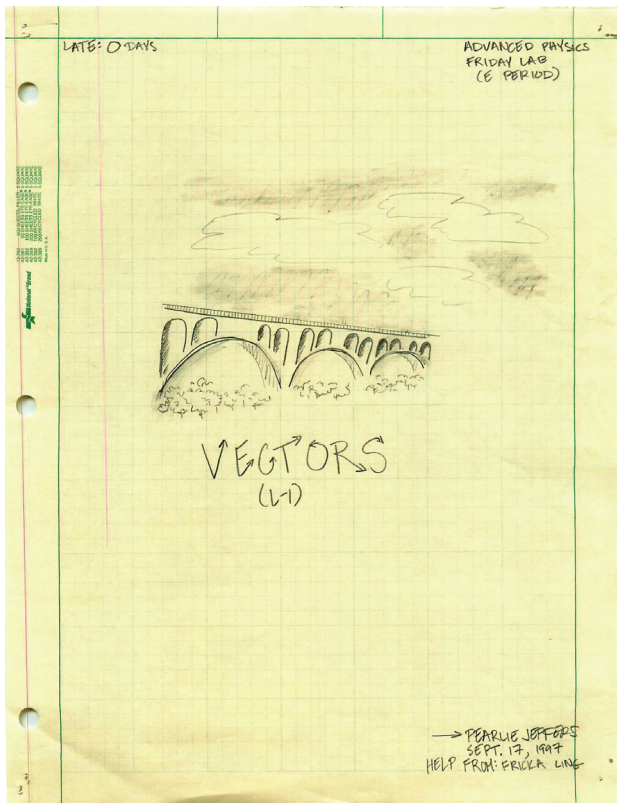
Kinematics Lab (try to read the subliminal messages below each word)



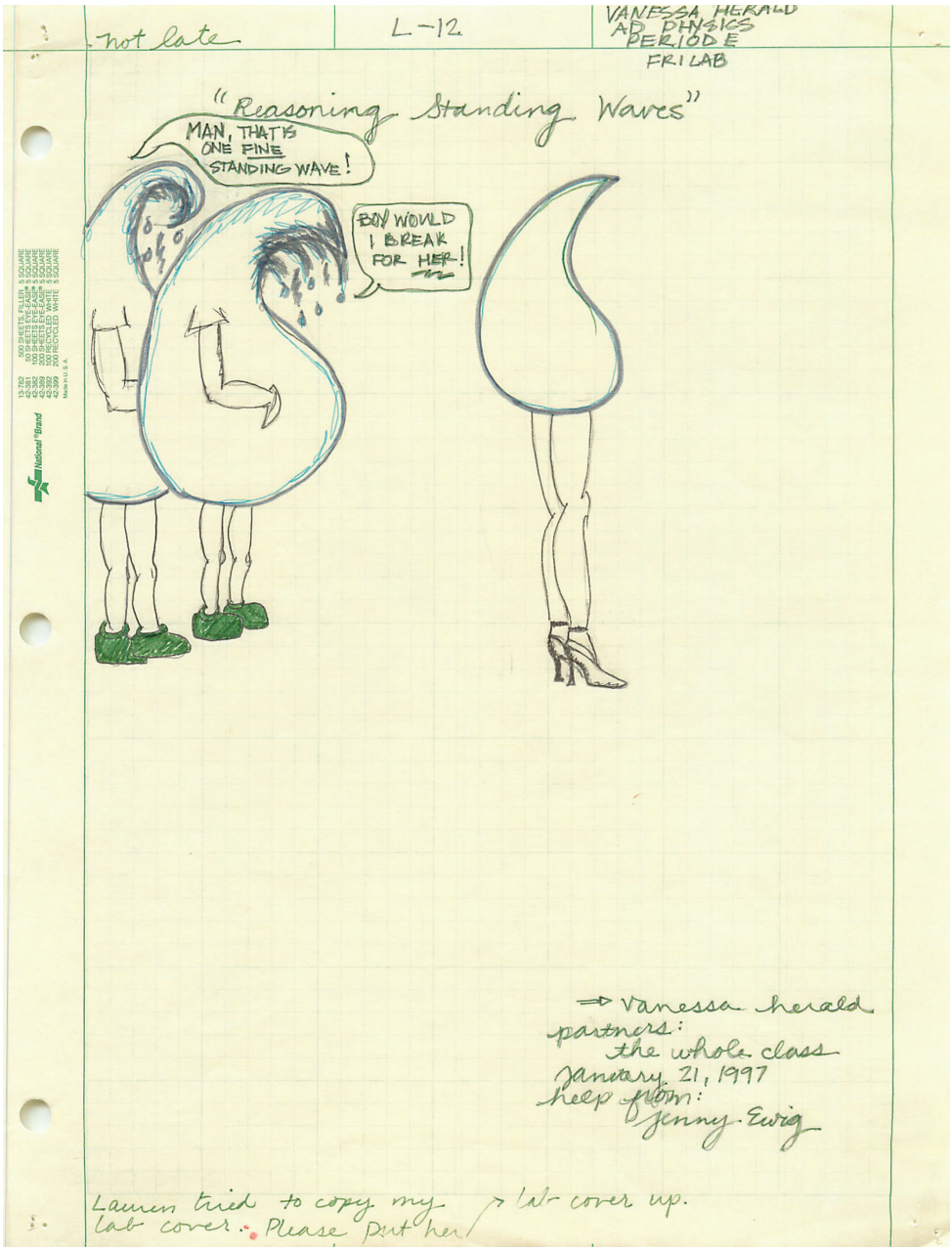

Advanced Physics
—FRIDAY LAB—
(Period A)
on time, every time
ONE TIME ONLY!!
due to potential lawsuits:
Suttle, Inc.® Presents:
NEW
the delightfully tasteful,
wonderfully un-offensive,
clean, clear, family oriented,
guaranteed to upset no one,
socially responsible, educational,
parentally advised LAB COVER!
tell your friends!
VECTORS
(L-1)
can you stand the EXCITEMENT!
The previous lab cover has been rated G
It contains:
absolutely no nudity
no sexual content whatsoever
not one scene depicting graphic violence
and no adult language or content to speak of
BROOKS SUTTLE, aka "boy genius"
Partners:
the whole class
September 17, 1997
Help from:
Brian Penrod
Old labs (just kidding!)
WARNING:
This lab cover contains
blatant sarcasm,
handle with care

Newton's Second Law Lab

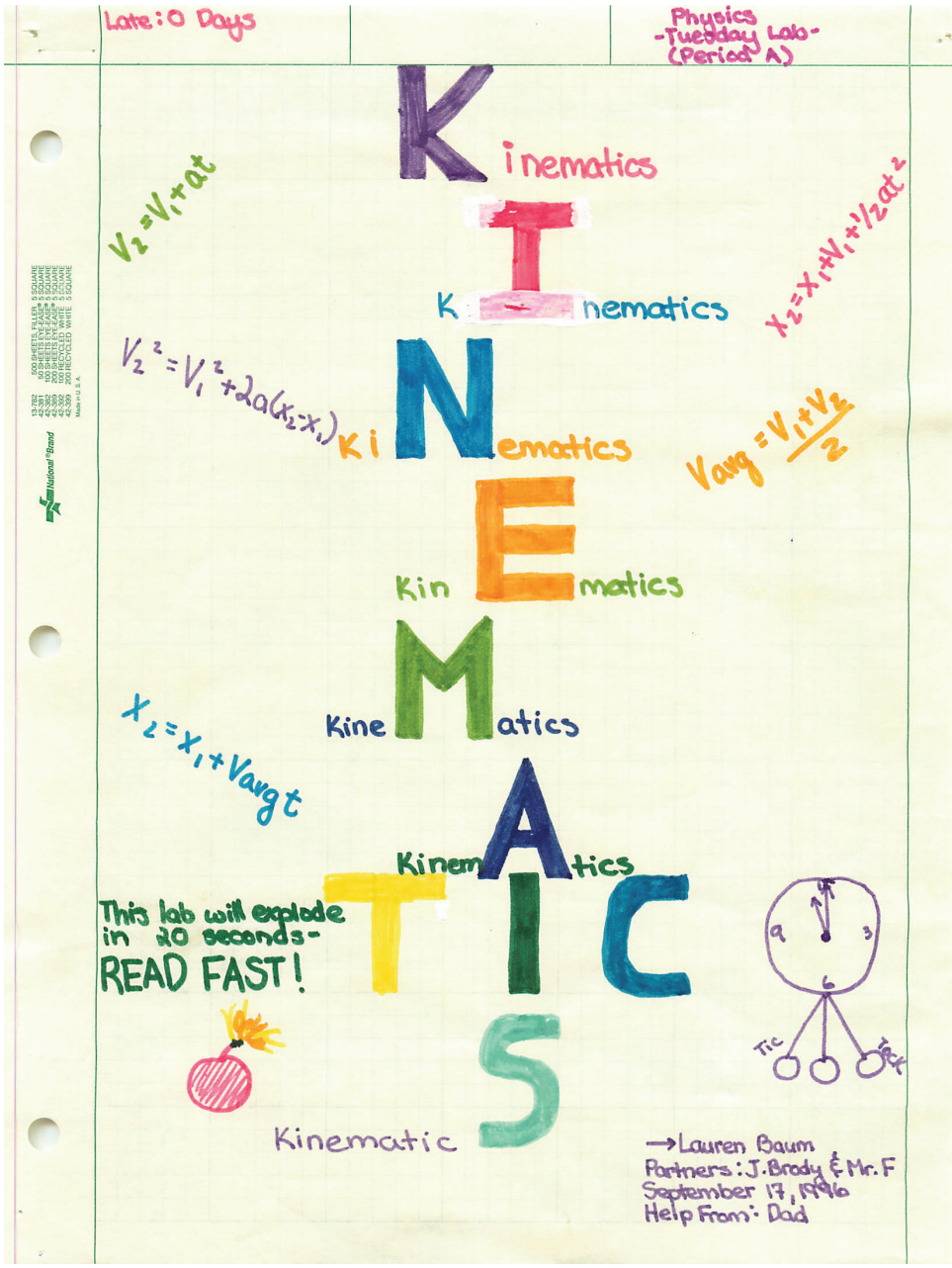


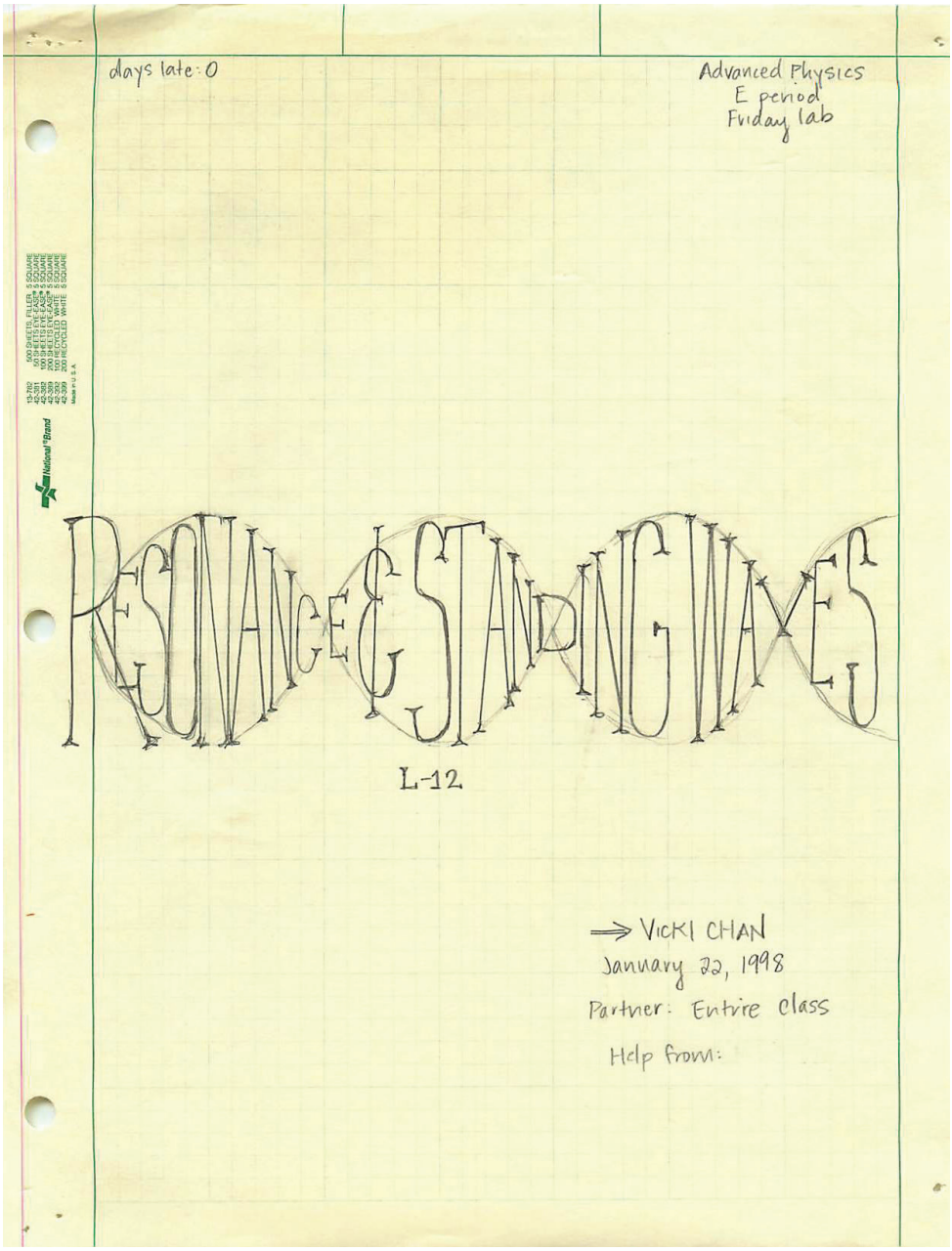


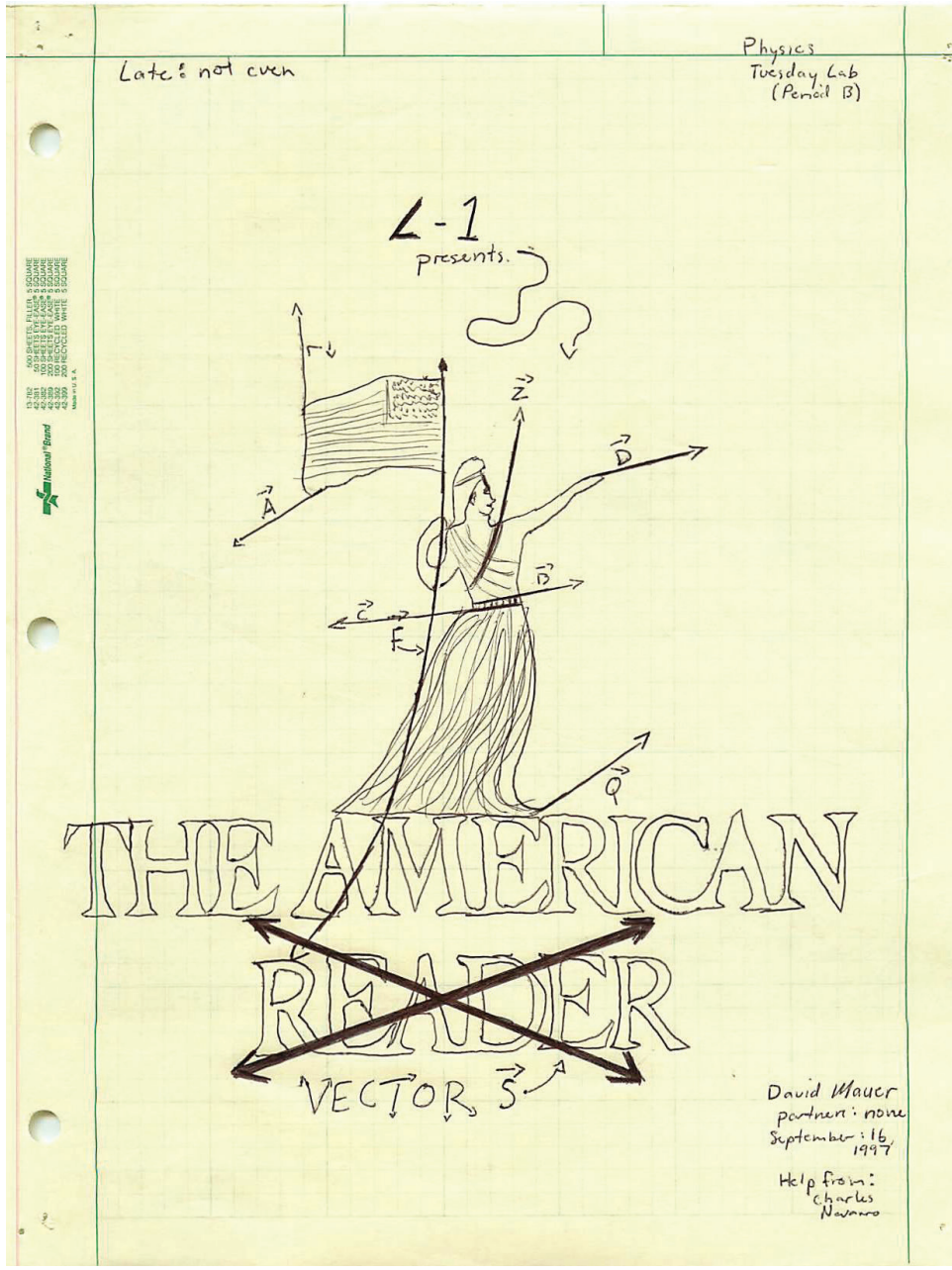
Vectors Lab

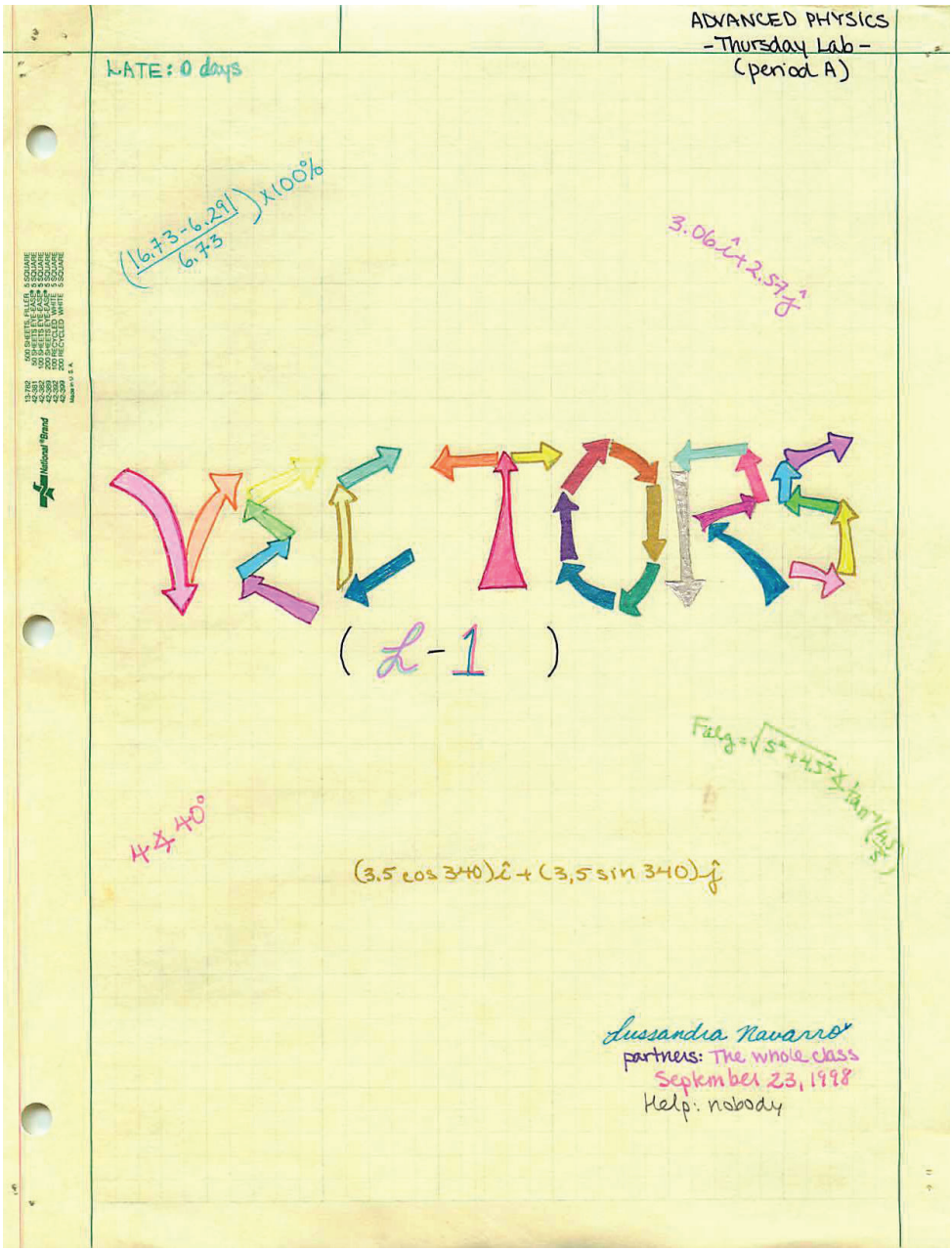

not late
L-12
VANESSA HERALD
AP PHYSICS
PERIOD E
FRI LAB
"Reasoning Standing Waves"
MAN, THAT'S ONE FINE STANDING WAVE!
BOY WOULD I BREAK FOR HER!
⇒ Vanessa Herald
partners:
the whole class
January 21, 1997
keep from:
Jenny Ewig
Lauren tried to copy my lab cover. Please put her lab cover up.

Kinematics Lab

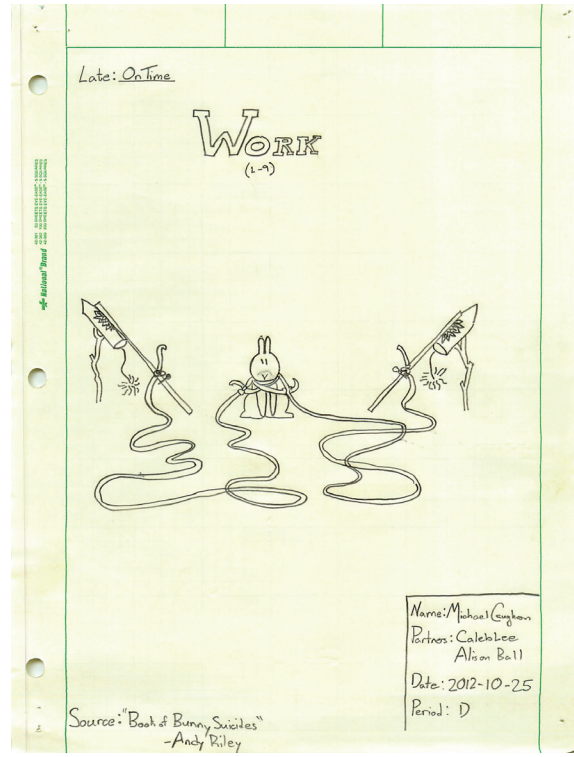



days late: 0
Advanced Physics
E period
Friday lab
RESONANCE & STANDING WAVES
L-12
⇒ VICKI CHAN
January 22, 1998
Partner: Entire class
Help from:

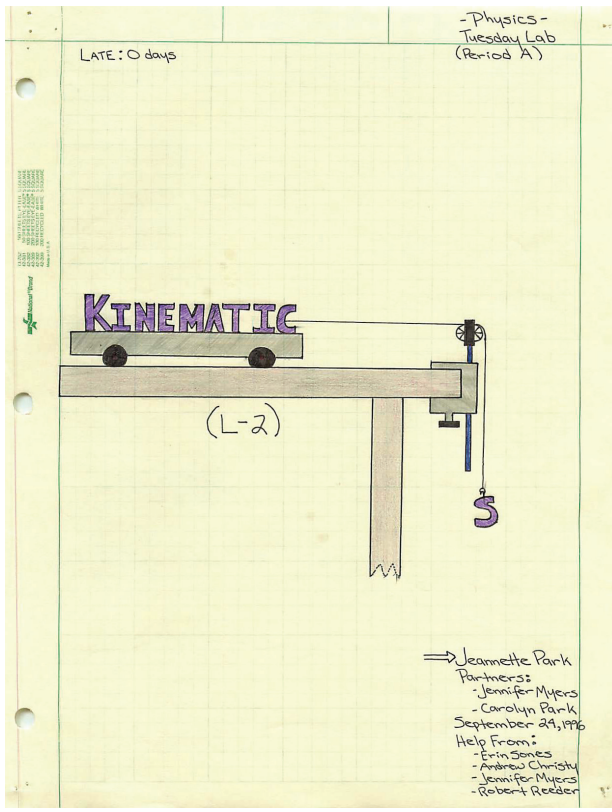

Late: not even
Physics
Tuesday Lab
(Period B)
L-1
presents.
THE AMERICAN
READER
VECTOR 5
David Mauer
partner: none
September 16
1997
Help from:
Charles
Navarro


ADVANCED PHYSICS
-Thursday Lab-
(period A)
LATE: 0 days
$\left(\frac{|6.73-6.29|}{6.73}\right)\times 100\%$
$3.06\hat{i}+2.57\hat{j}$
VECTORS
(2-1)
$\text{Falg}=\sqrt{5^2+4.3^2}\ \angle\tan^{-1}\left(\frac{4.3}{5}\right)$
44 40°
$(3.5\cos 340)\hat{i}+(3,5\sin 340)\hat{j}$
Lussandra Navarro
partners: The whole class
September 23, 1998
Help: nobody

Work Lab

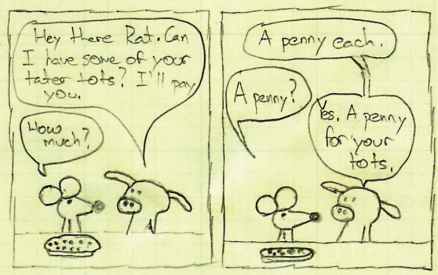


Kinematics Lab



Late:

Work Lab
L-10

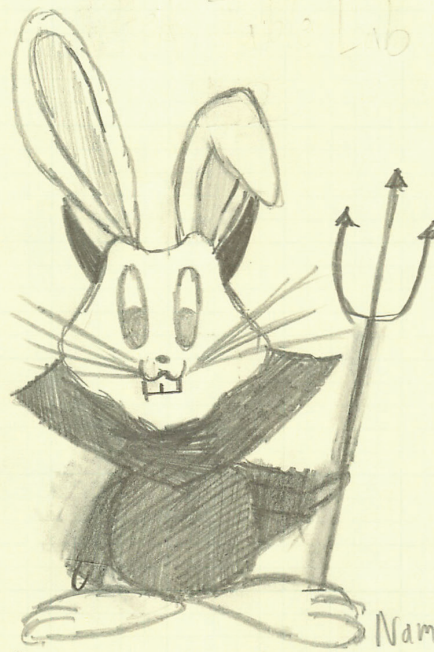


Help From: Fletcher

Name: Mohit Aayush
Partner: Stephanie C., Annie W
Date: November 2, 2015
Period: D

Late: No

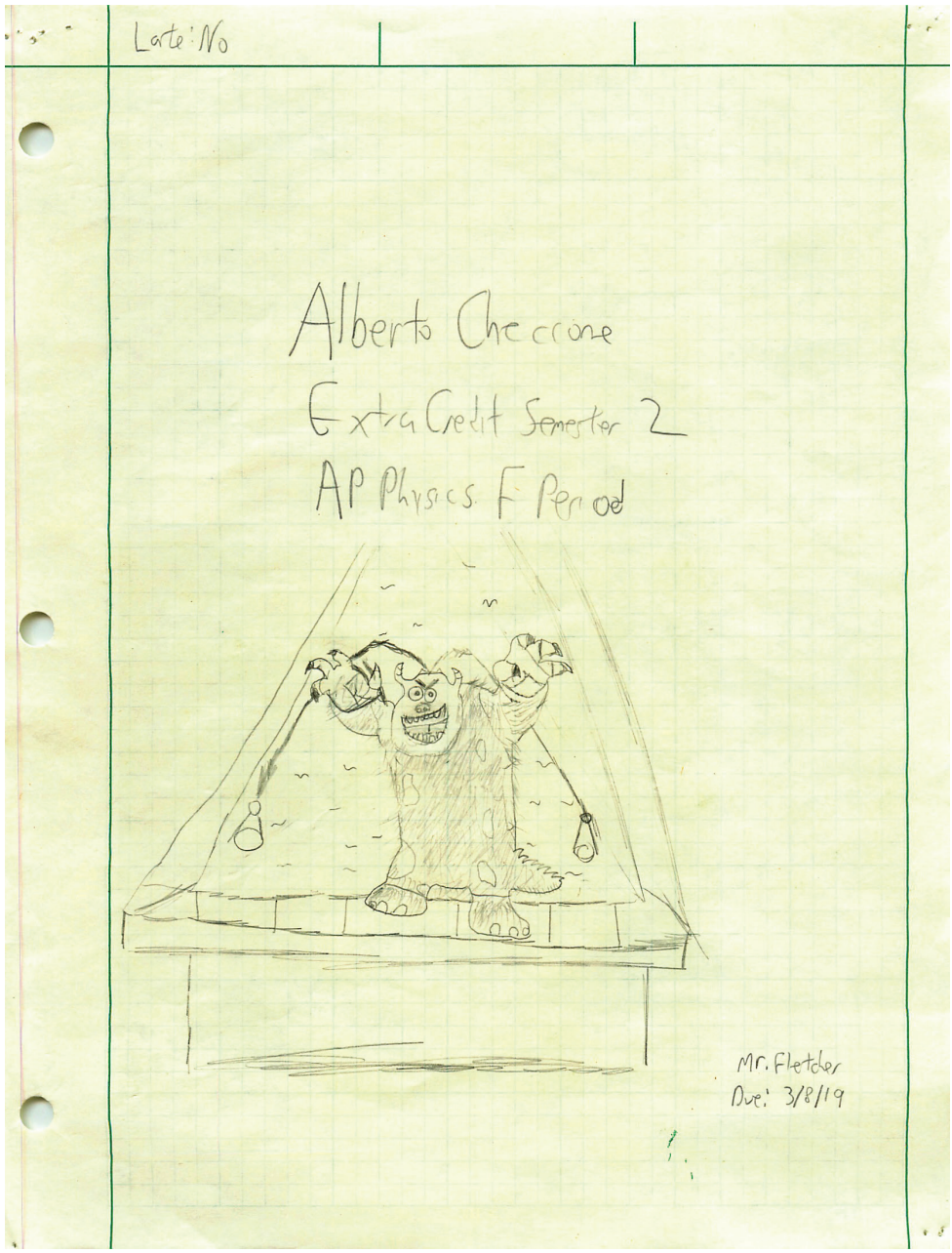
Tilted Table Lab
L-2



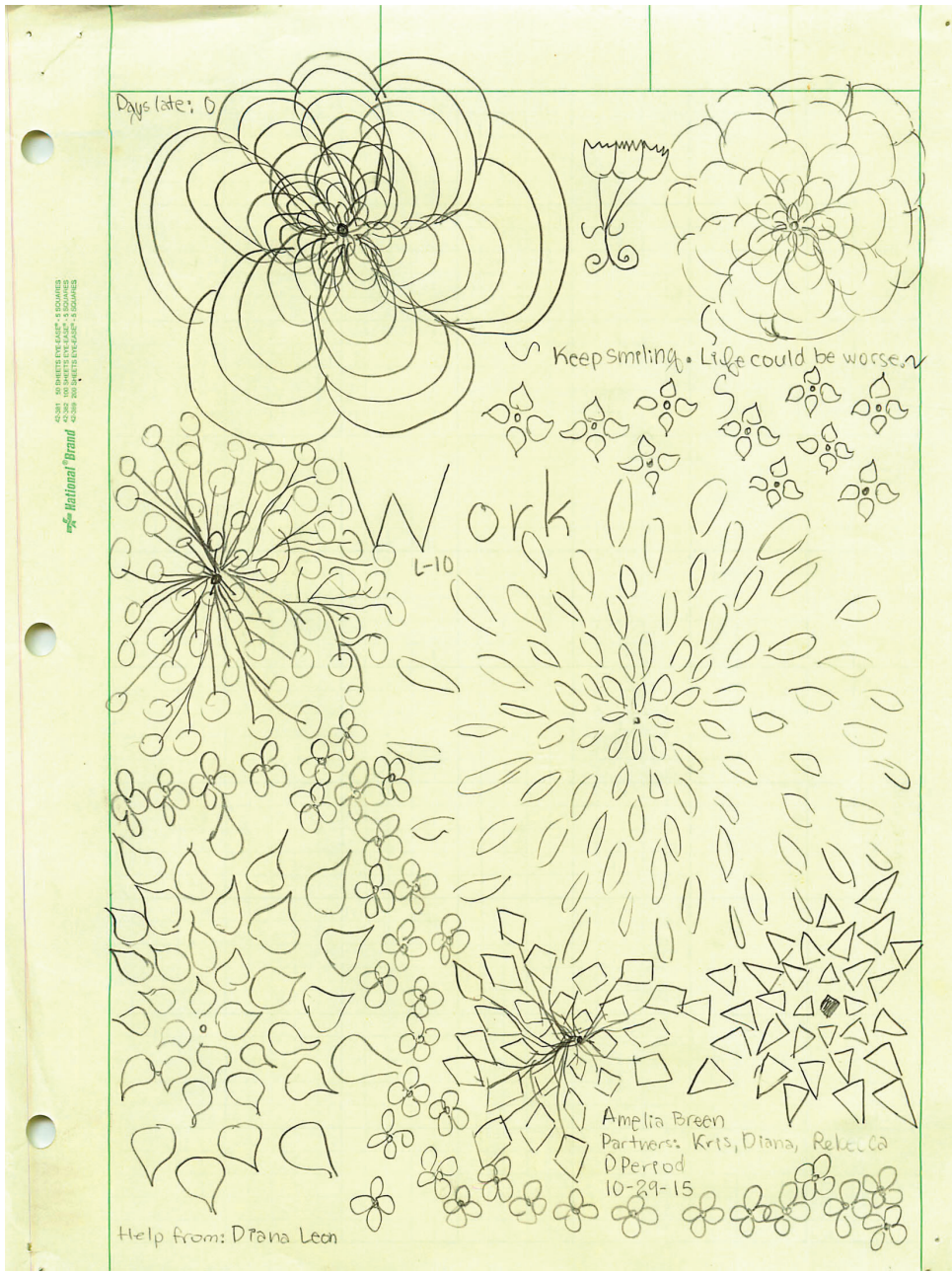
Help From:

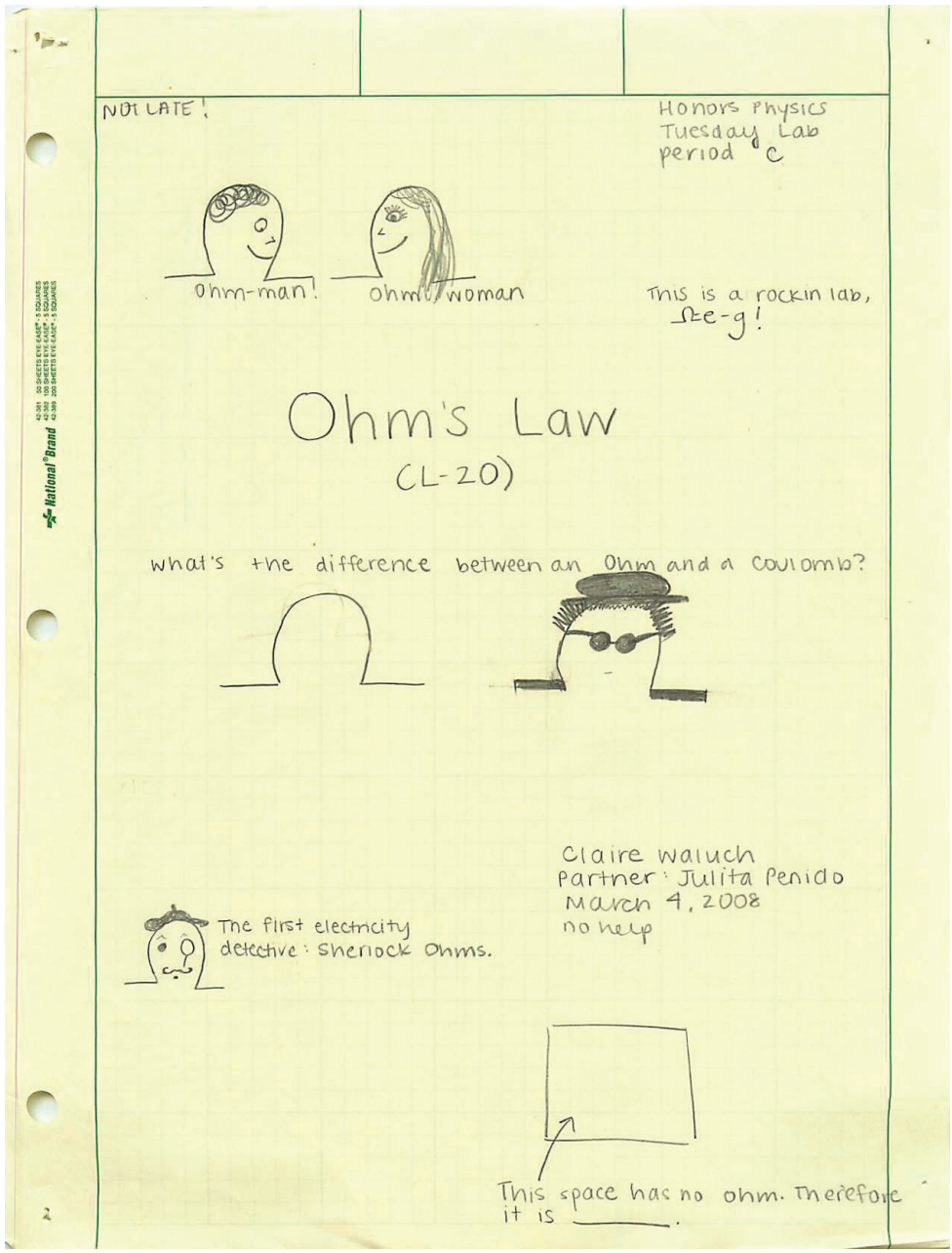
Name: Ferris Yang
Partners: Aaron Lew
Teddy Debreu
Date: 9/22/2015
Period: A

Extra Credit (it's Sully terrorizing children)

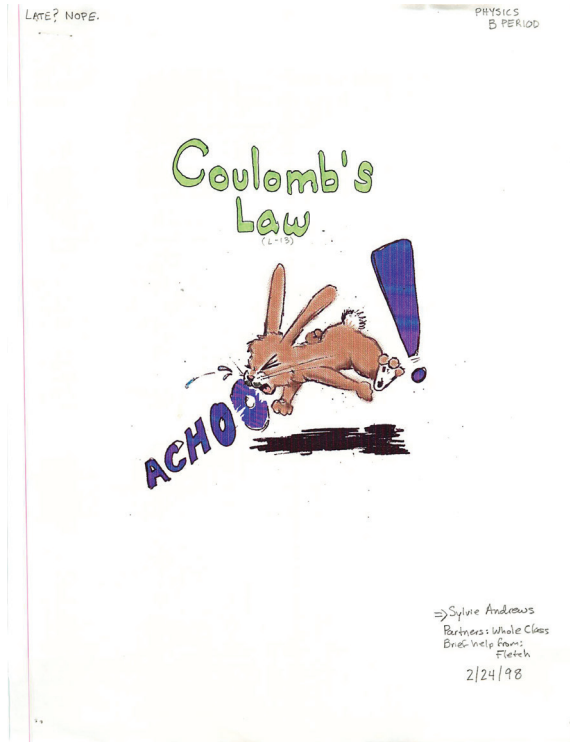


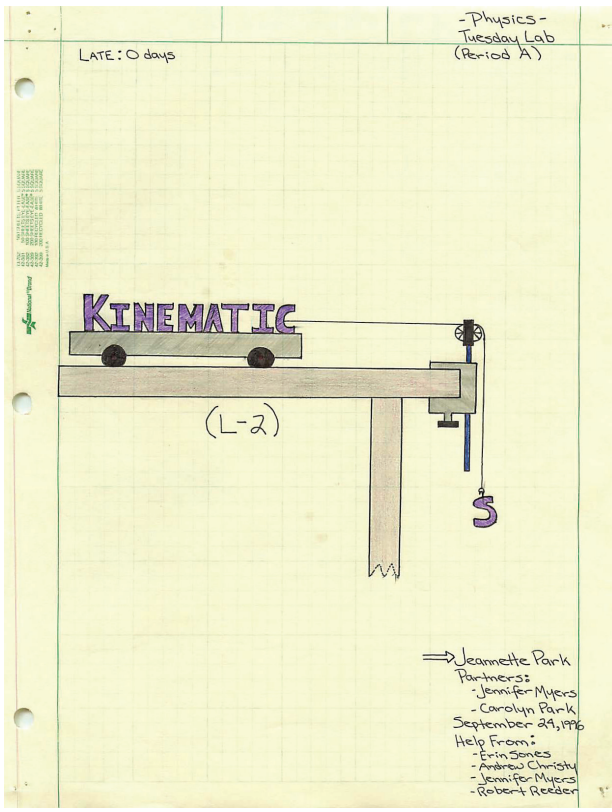
Work Lab


Days late: 0
Keep smiling. Life could be worse.
Work
L-10
Amelia Breen
Partners: Kris, Diana, Rebecca
D Period
10-29-15
Help from: Drana Leon


NO! LATE!
Honors Physics
Tuesday Lab
period C
ohm-man!
ohm! woman
This is a rockin lab,
Ωe-g!
Ohm's Law
(CL-20)
what's the difference between an Ohm and a Coulomb?
Claire Waluch
Partner: Julita Penido
March 4, 2008
no help
The first electricity
detective: Sherlock Ohms.
This space has no ohm. Therefore
it is ____.
2

Coulomb's Law Lab



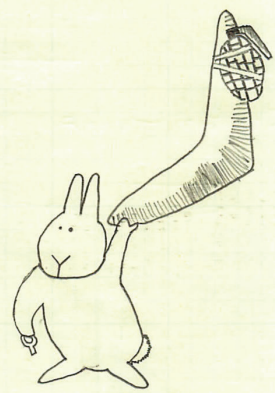


Kinematics Lab

Ballistic Pendulum Lab

Late: On Time

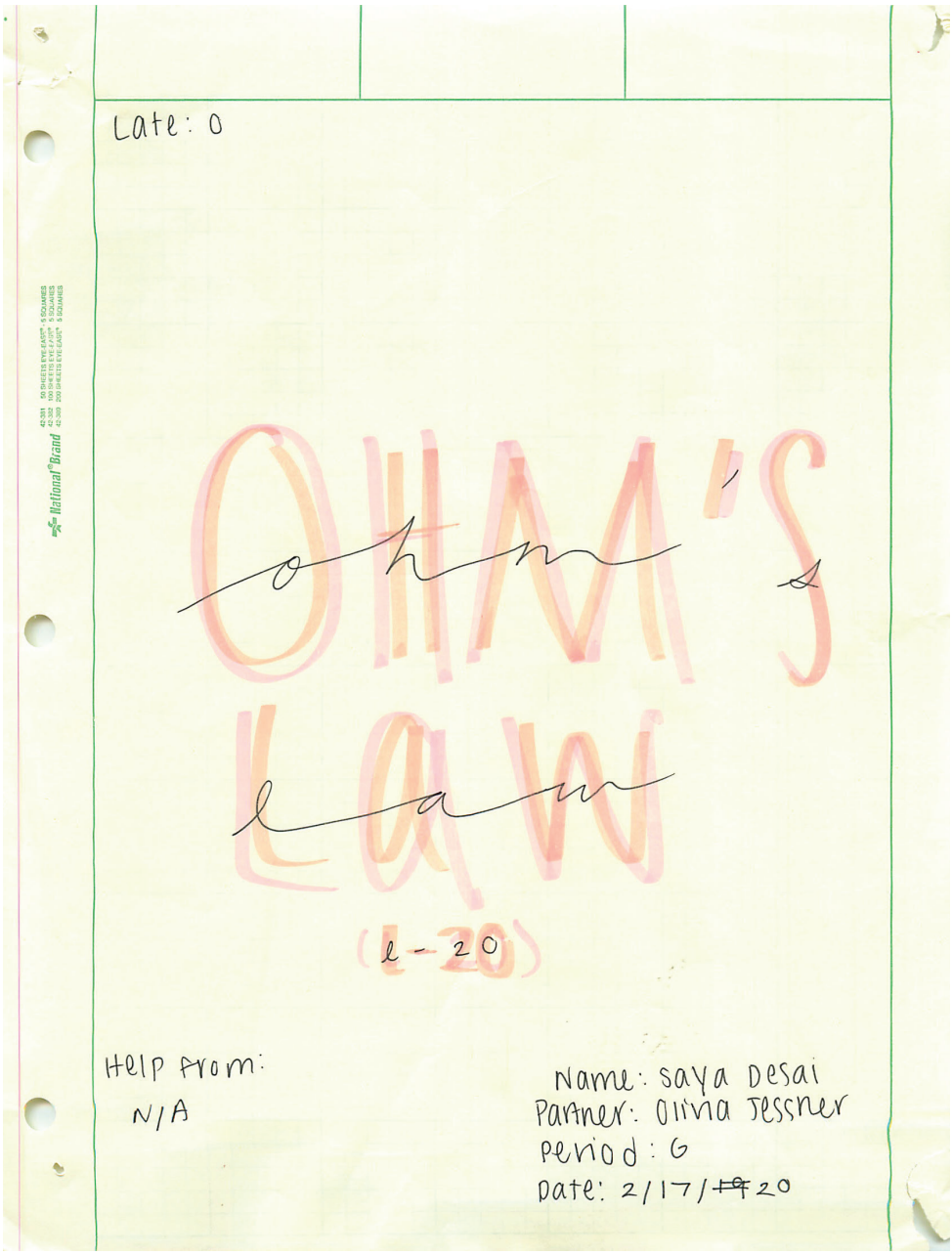
Conservation of Energy (L-11)



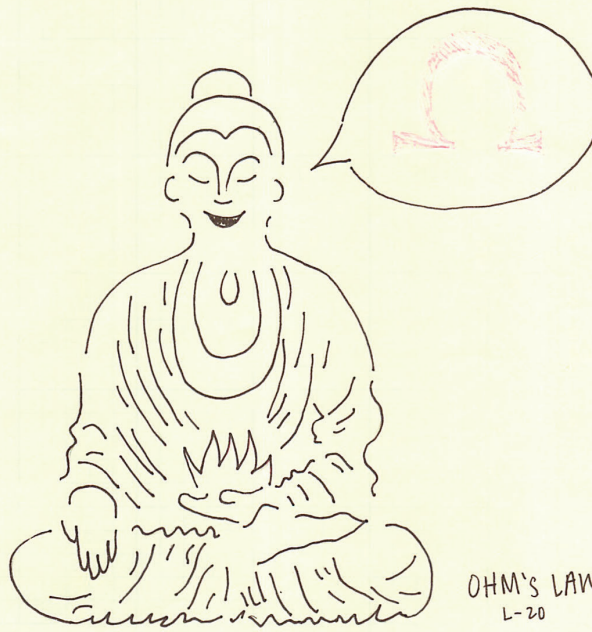
Name: Michael Caughron

Date: 2012-10-30

Period: D


Late: 0
OHM'S LAW
(L-20)
Help from:
N/A
Name: Saya Desai
Partner: Olina Jessner
Period: 6
Date: 2/17/~~19~~20

LATE: NO



OHM'S LAW
L-20

NAME: MERCEDES DOBBS
PERIOD: D
PARTNERS: CAITLIN W V
BAEHLER THOMPSON
DATE: 02.18.20

LATE: _____

NAME: Randy Heartfield

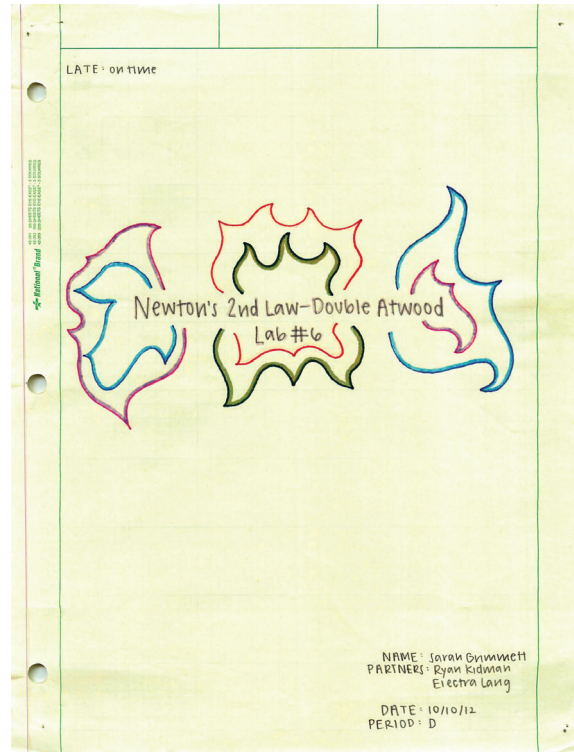
PARTNERS: Damini Sayyed
Graham Olson
Jackson Hagge

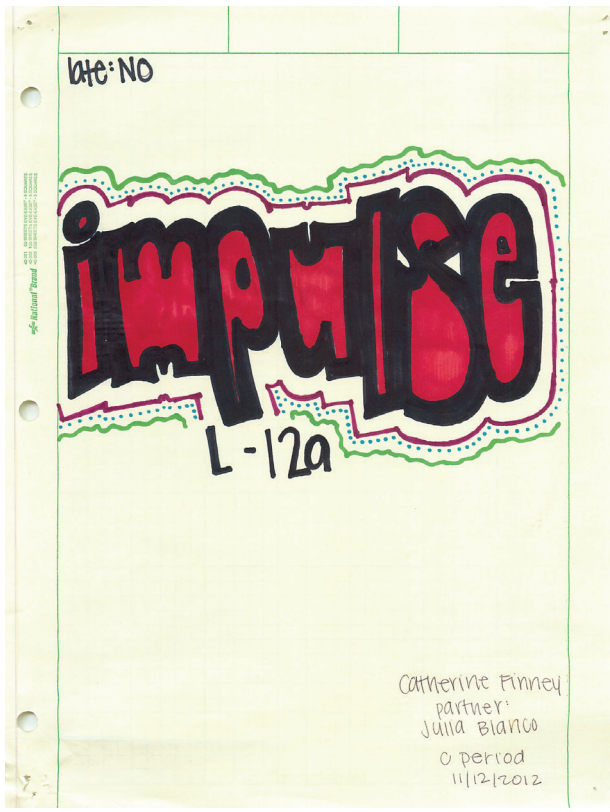
DATE: 9/7/17

PERIOD: F L1

HELP FROM:

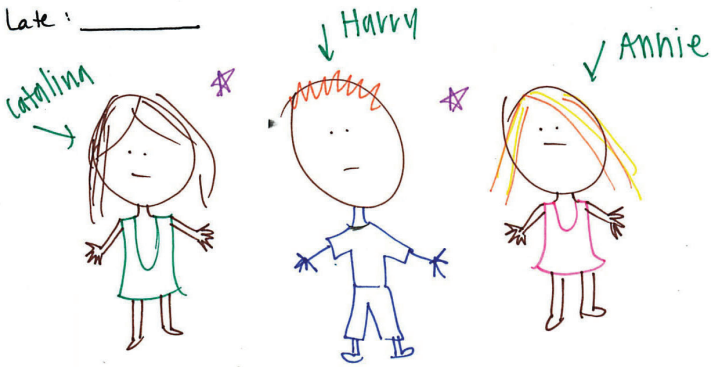
Newton's Second Law Lab





Impulse and
Collisions Lab

Late: _____



Fun & Games w/

1D Kinematics Lab

L-1

JUST SOME BUDS LEARNIN' PHYSICS TOGETHER 4EVER

BPFS

(Best Physics Friends)

Help from:

Name: Annie Hodges

Partners: Catalina & Harry

Date: 10/6/18

Period: D

'F' PERIOD

COOL OHM'S FORCE
(GET IT! COULOMB'S FORCE!
HA HA HA HA HA HA HA HA HA)

OOPS!

THAT WAS LAST WEEK'S LAB.

THIS WEEK'S LAB IS

OHM'S LAW

THOMAS BREHME
LAB PARTNERS:
KATIE G.
STEVEN E. S
ALLISON B.

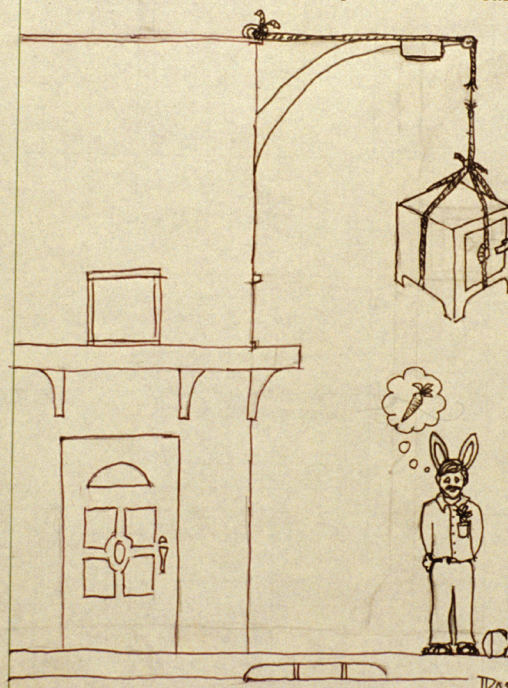
3/1/88

late: 0 days
Advanced Physics
Friday Lab
E period
COEFFICIENT
OF
KINETIC
do it yourself
FRICTION
(L-4)
⇒ Vicki Chan
partner: Kevin Wu
October 22, 1997
help from: Kentaro Suzuki
Anuj Gupta

FRIDAY LAB

Quiz #1 - 1997
Kinematics/Vectors/Wave Oscillations/Optics/Gravitation/Relativity
Part G, Problem 32, page 57, edition 5i

32a) If a 35.7 kg lead safe is suspended from a building 72.5m tall, what is the magnitude of the cross wind that buffets the safe while it is suspended by means of extra-duty-strength teflon rope that costs $3.50/m on sale at K-Mart, Blue Light Special?
b) What direction is the wind coming from (5 decimal places)?
c) If the rope snaps at 2.4m from the top, how long will it take for the safe to entirely pulverize the pitiful Mr.F if the initial velocity is -500m/s in the y direction?
d) Assuming bus 35 is on schedule, when will its passengers first spot the entrails of Mr.F under the safe?
e) What if the passengers have cataracts?



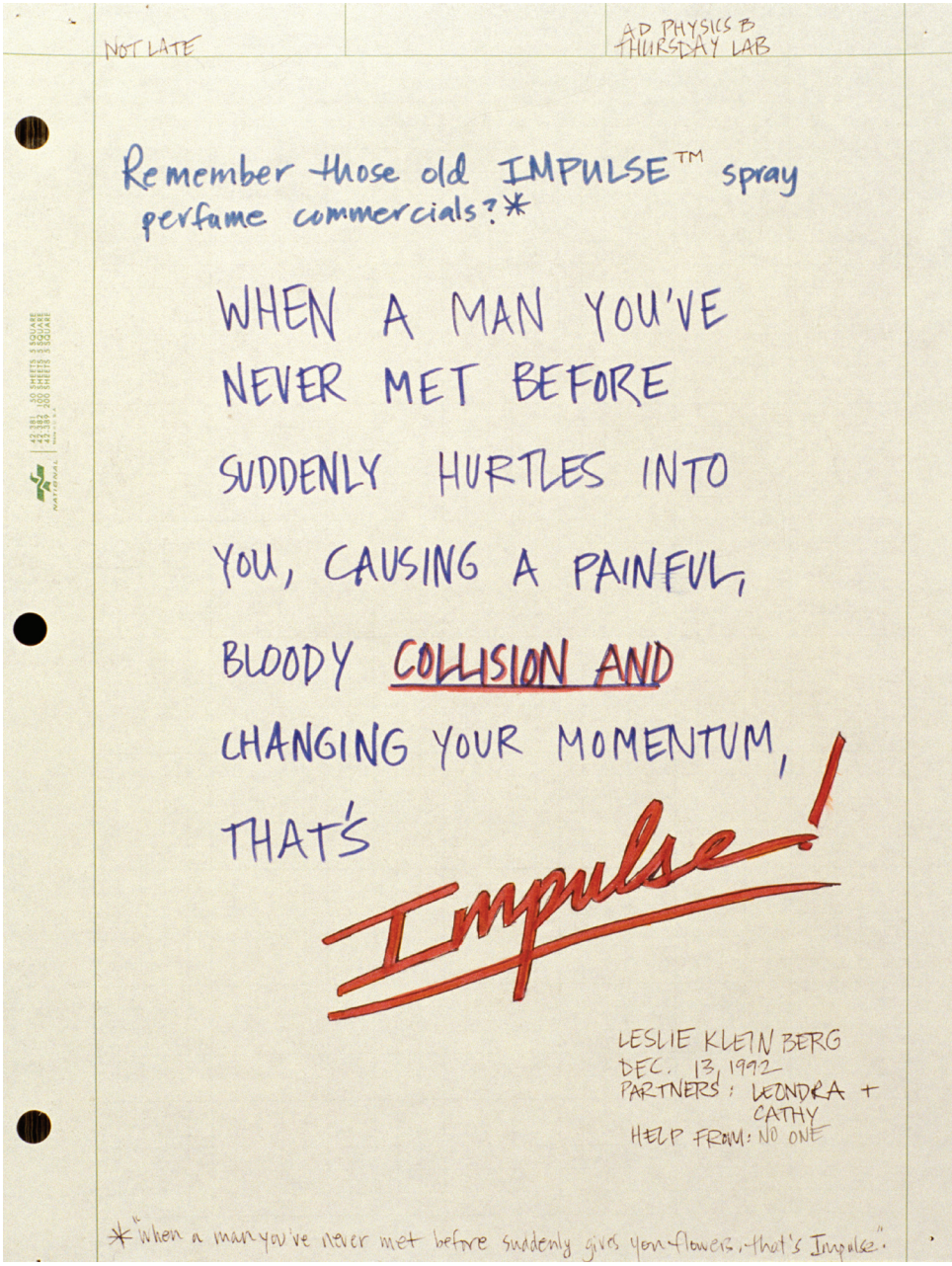
Super-Easy EXTRA CREDIT

(You will kick yourselves if you miss this one)

What is the middle name of the bus driver?
(1 point)

CALVIN HIWANG
PARTNERS:
GEORGE HORNG
DIDN'T NEED NO HELP FROM NOBODY!
(EXCEPT NISHAT)

Please note:
The names have been changed to protect the innocent. Any resemblance to actual characters is accidental and purely of the author's imagination. Thanks for your cooperation!


NOT LATE

AP PHYSICS B
THURSDAY LAB

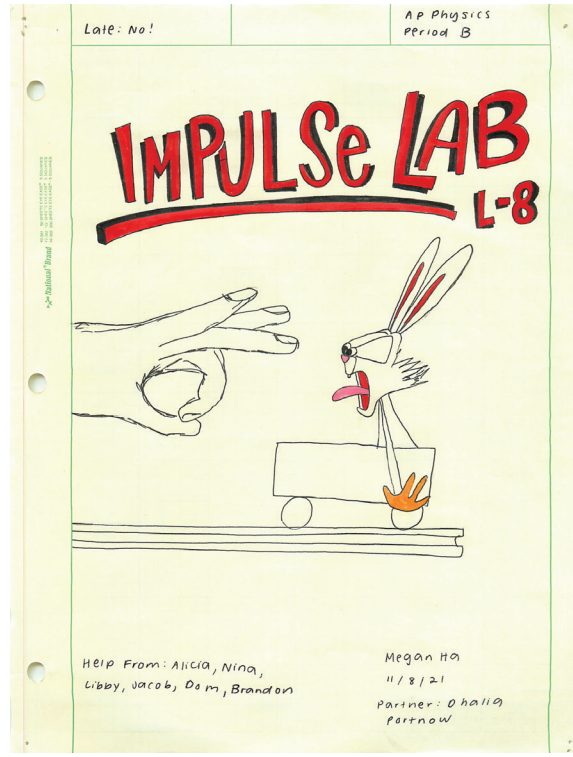
Remember those old IMPULSE™ spray perfume commercials?*

WHEN A MAN YOU'VE NEVER MET BEFORE SUDDENLY HURTLES INTO YOU, CAUSING A PAINFUL, BLOODY COLLISION AND CHANGING YOUR MOMENTUM, THAT'S Impulse!

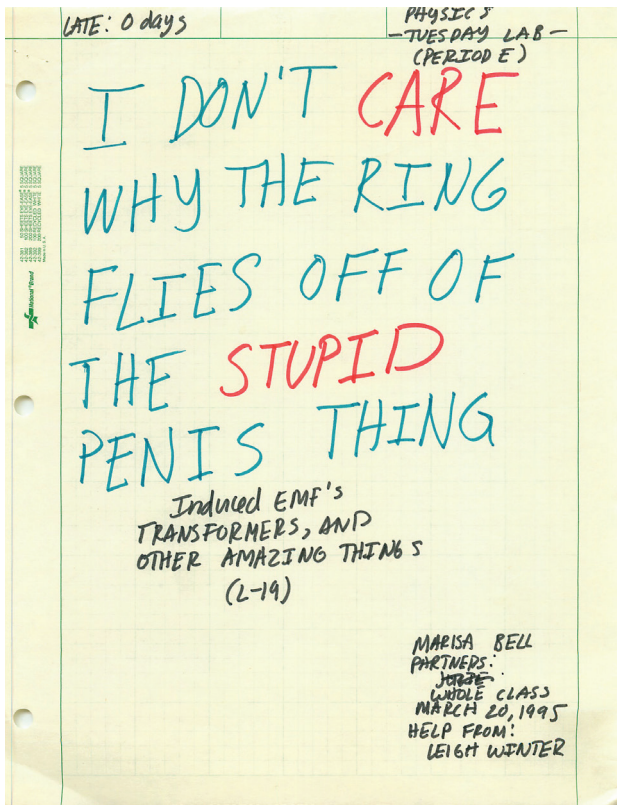
LESLIE KLEINBERG
DEC. 13, 1992
PARTNERS: LEONORA + CATHY
HELP FROM: NO ONE

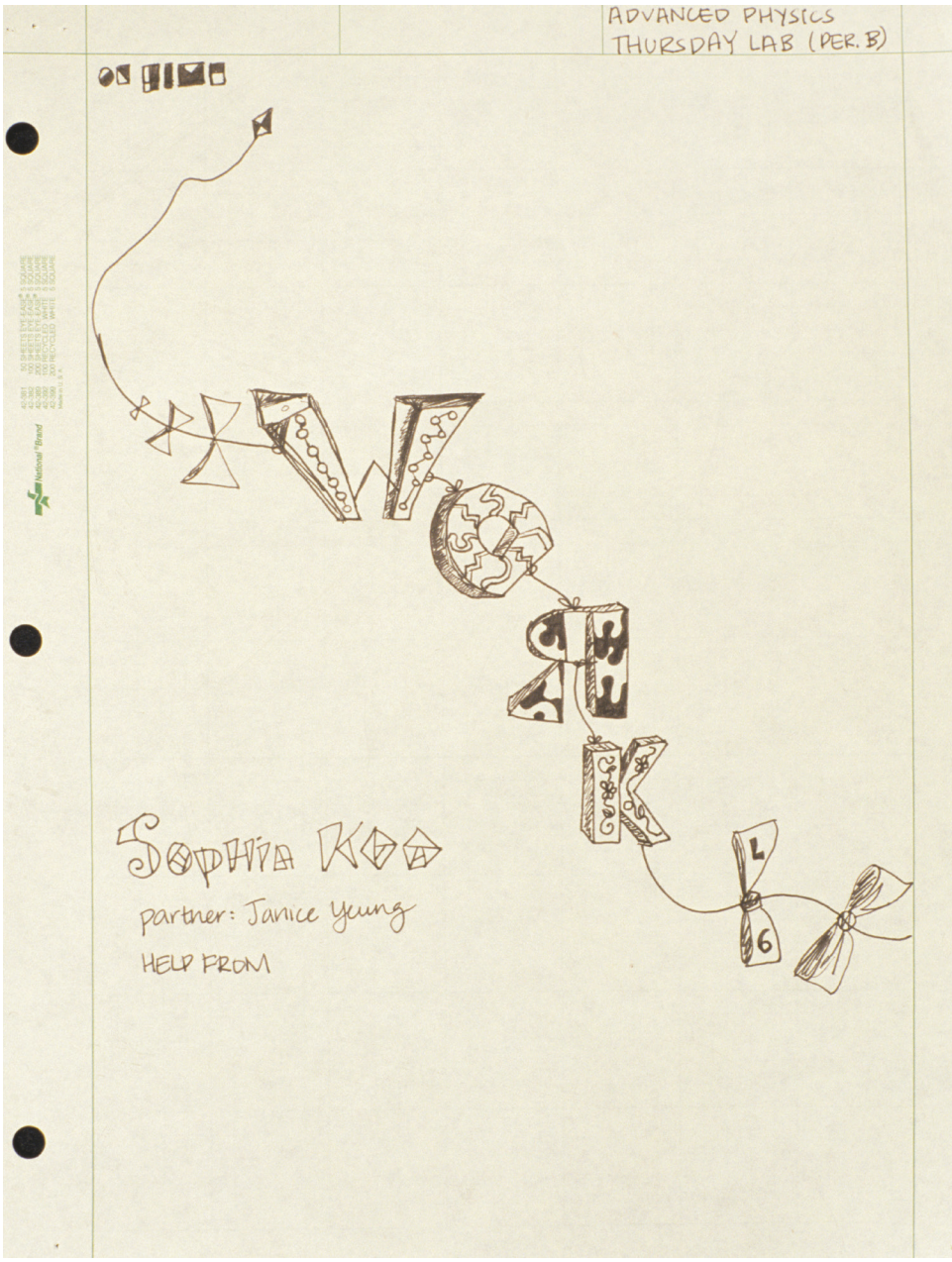
*"When a man you've never met before suddenly gives you flowers, that's Impulse."

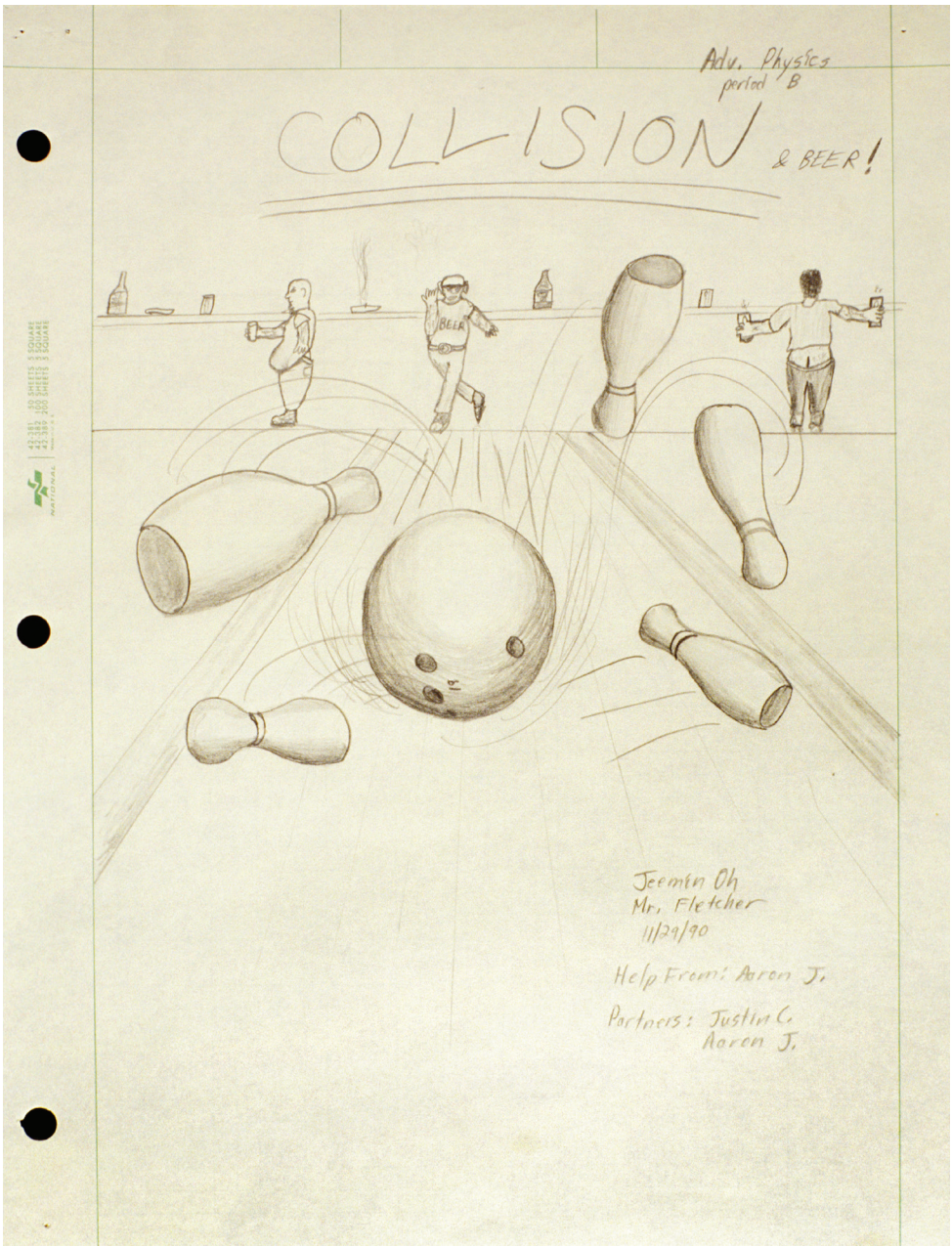
Impulse and Collision Lab

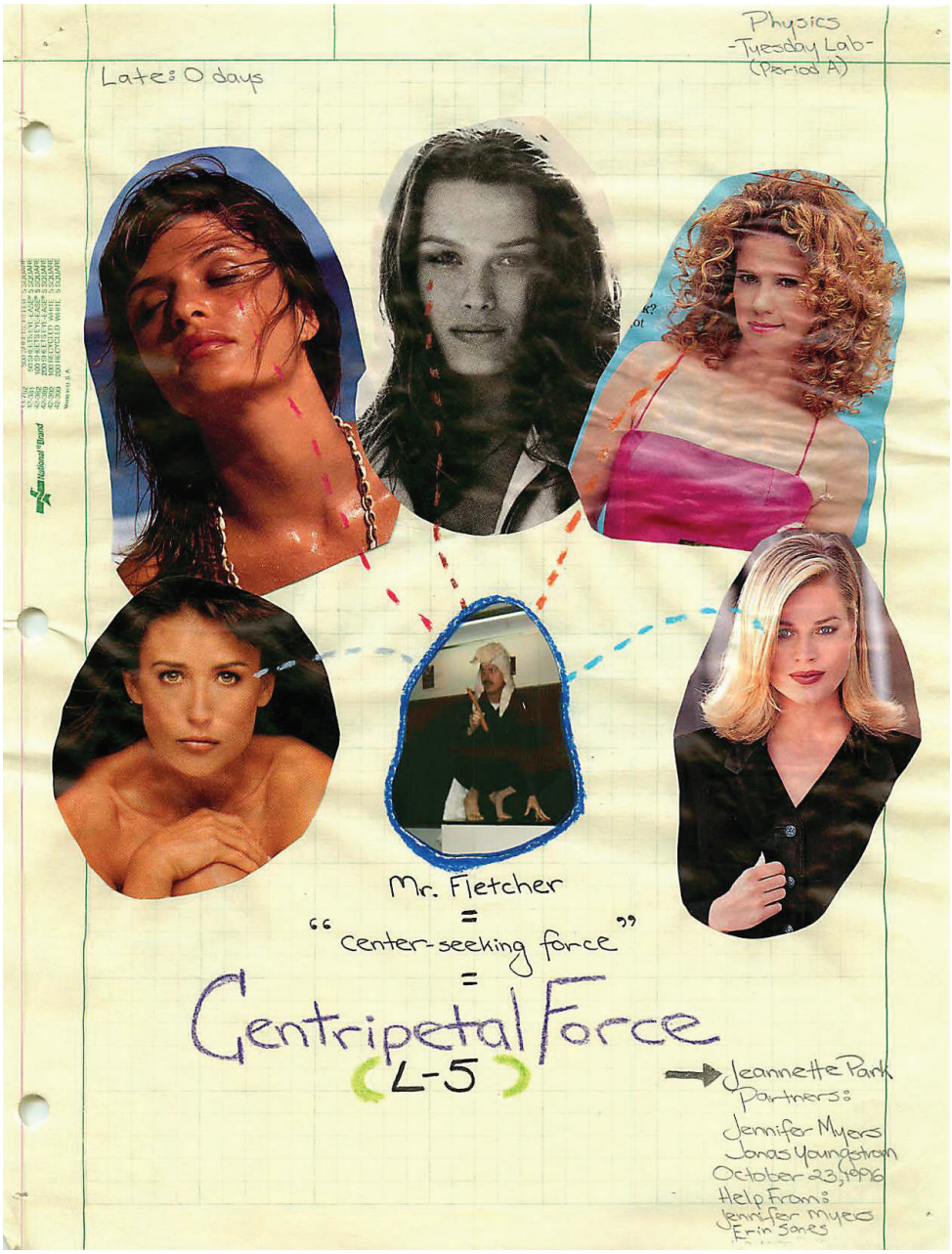


Induced EMFs Lab




ADVANCED PHYSICS
THURSDAY LAB (PER. B)
WORK
Sophia Koo
partner: Janice Yeung
HELP FROM


Adv. Physics
period B
COLLISION & BEER!
BEER
Jeemin Oh
Mr. Fletcher
11/29/90
Help From: Aaron J.
Partners: Justin C.
Aaron J.


Physics
-Tuesday Lab-
(Period A)
Late: 0 days
Mr. Fletcher
=
"center-seeking force"
=
Centripetal Force
L-5
Jeannette Park
Partners:
Jennifer Myers
Jonas Youngstrom
October 23, 1996
Help From:
Jennifer Myers
Erin Sares

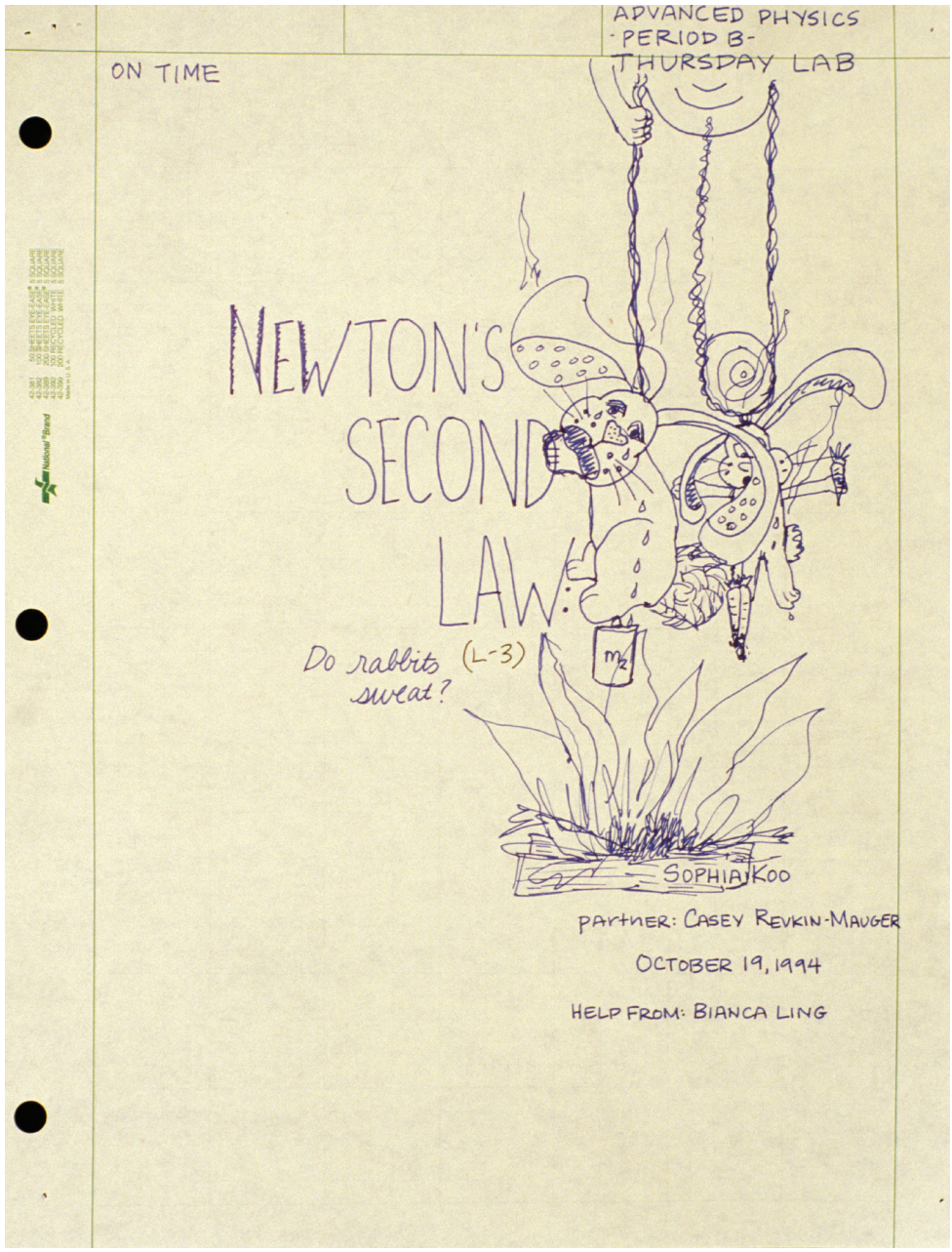
Friction Lab

0 Days Late

Ad. Physics, Per. B
Friday lab

FRICTION
L-4

Meredith Quinn
Partner: Tenese Williams
October 26, 1994
Help from: No One

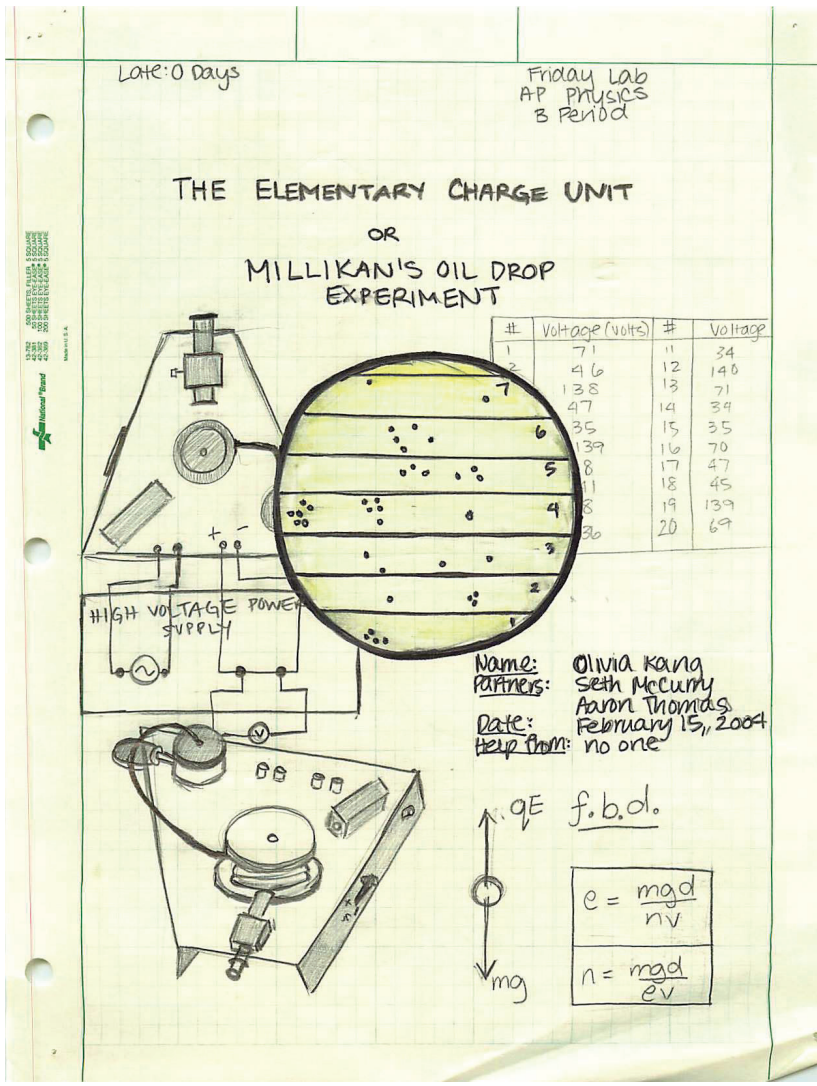

ADVANCED PHYSICS
- PERIOD B-
THURSDAY LAB
ON TIME
NEWTON'S SECOND LAW:
Do rabbits sweat? (L-3)
m2
SOPHIA KOO
PARTNER: CASEY REVKIN-MAUGER
OCTOBER 19, 1994
HELP FROM: BIANCA LING

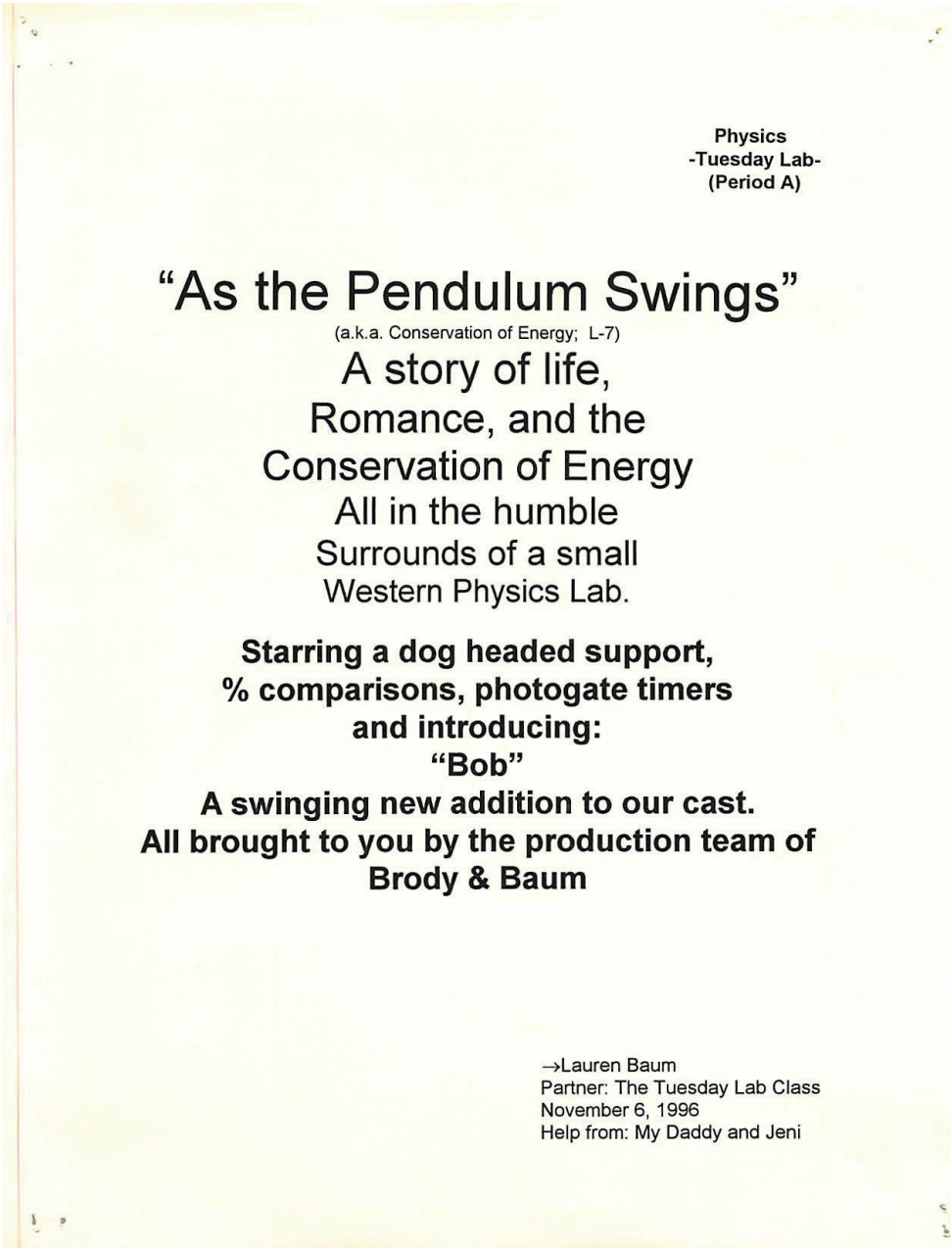
Chapter 43

Lab Covers—Part 4

And the fun just keeps coming . . .

Millikan Oildrop Lab





Physics
-Tuesday Lab-
(Period A)

"As the Pendulum Swings"

(a.k.a. Conservation of Energy; L-7)

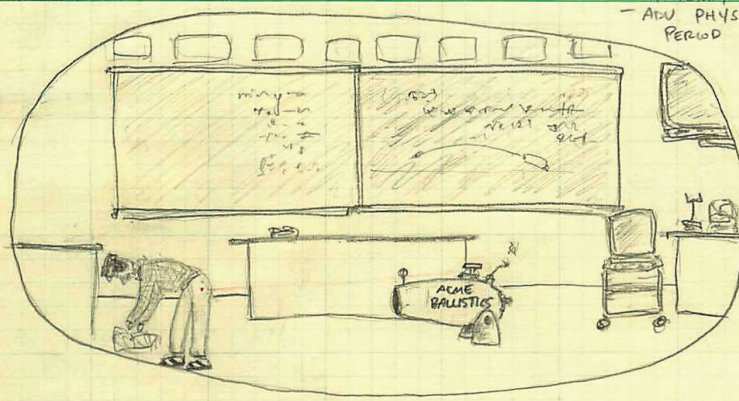
A story of life,
Romance, and the
Conservation of Energy
All in the humble
Surrounds of a small
Western Physics Lab.

Starring a dog headed support,
% comparisons, photogate timers
and introducing:
"Bob"
A swinging new addition to our cast.
All brought to you by the production team of
Brody & Baum

→Lauren Baum
Partner: The Tuesday Lab Class
November 6, 1996
Help from: My Daddy and Jeni

DAYS LATE: 0

THURSDAY LAB
- ADV PHYSICS -
PERIOD A



CONSERVATION OF ENERGY

(L-7)

Name: JOSEPH LEE
Date: NOVEMBER 11, 1998
Partners: JASON LUK
Help: JASON LUK

Late: 0 days

Physics (A Period)
Tuesday Lab

Ballistic Pendulum
(L-12)

What's this, you ask? Why, it's Edgar Allen Poe's story, "The Pit & the Pendulum", in its entirety (just really teeny tiny). ☺

Lisa Hernandez
Partners: Lauren Baum &
Jennifer Brody

January 7, 1997
Help from: Kelly !!!

Induced EMF, Transformers and Other Amazing Things Lab

Days Late : ∅

Resistance is futile.
(if > 1 Ohm)

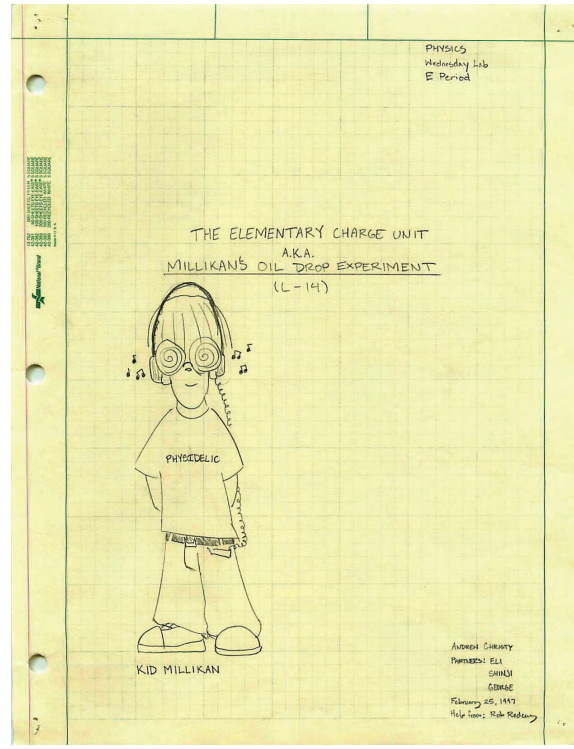
Ohm's Law Lab
(LL-21)

OHM NEVER FORGOT HIS DYING UNCLE'S ADVICE.

Name : Alexis Genske
Period : C, Honors Phy.
Date : 2/23/12
Partner : Kevin Chu

HELP FROM :
Hannah Grotzinger

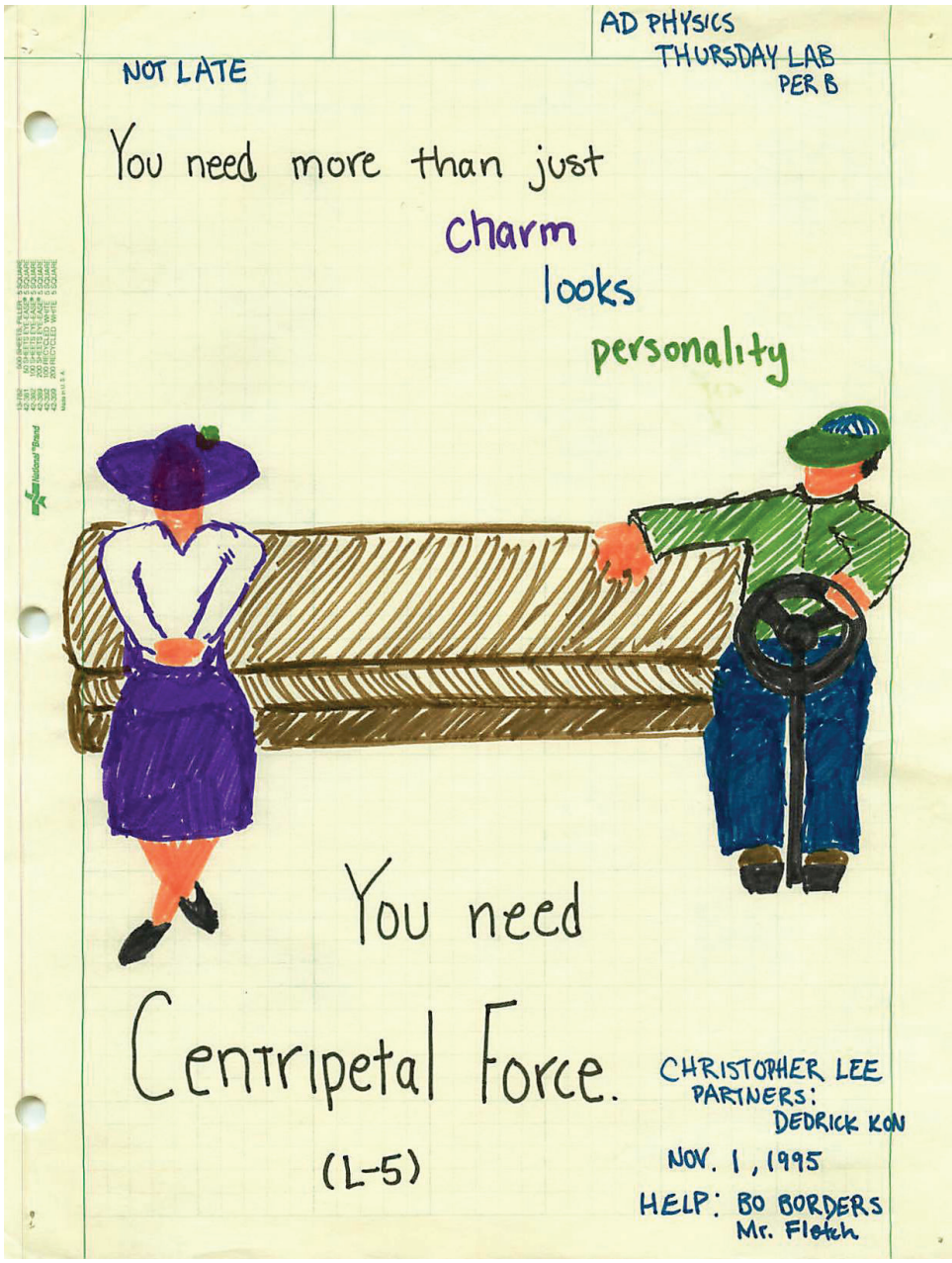
Millikan Oildrop Lab



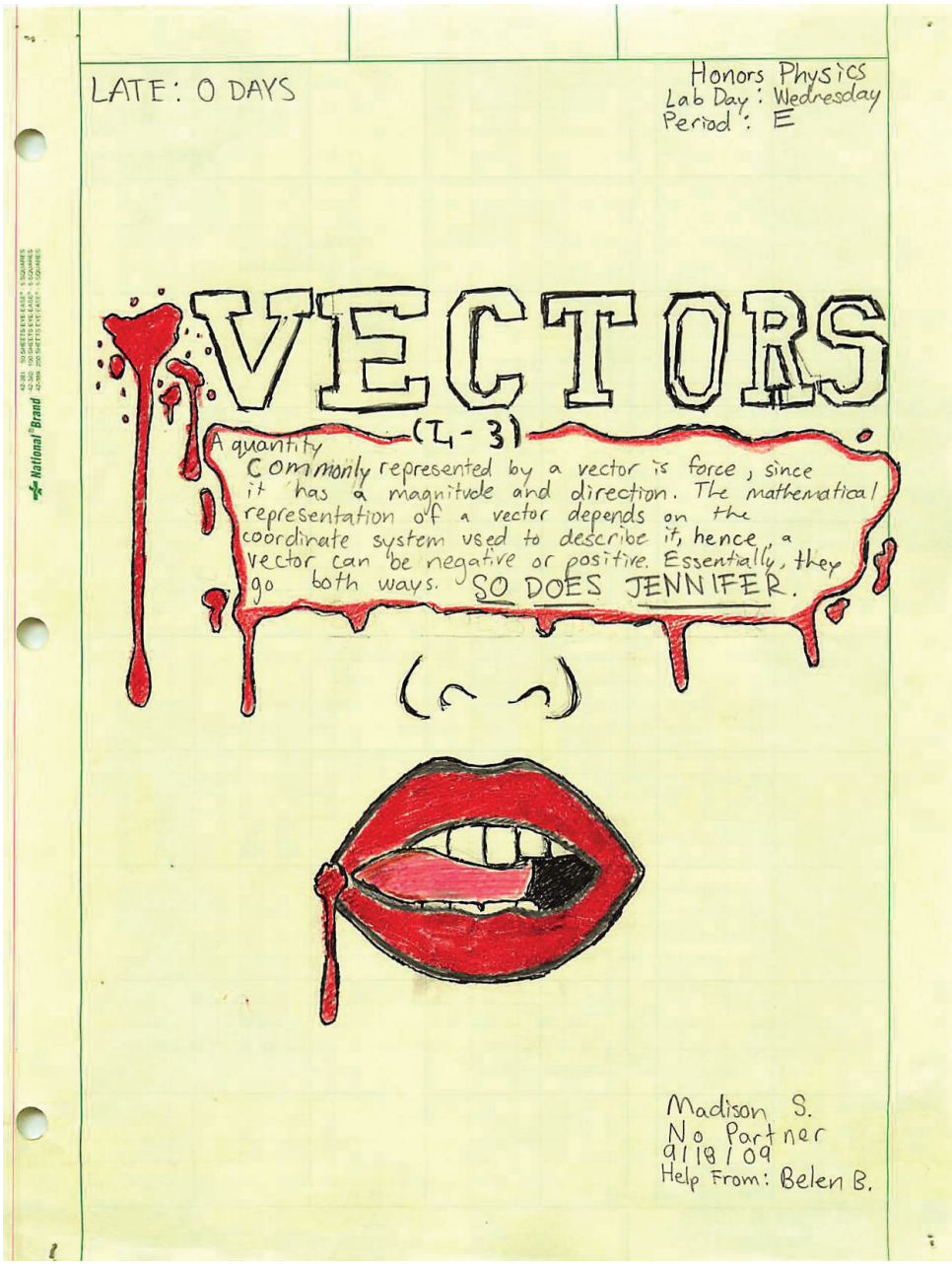
Complex Circuits Lab

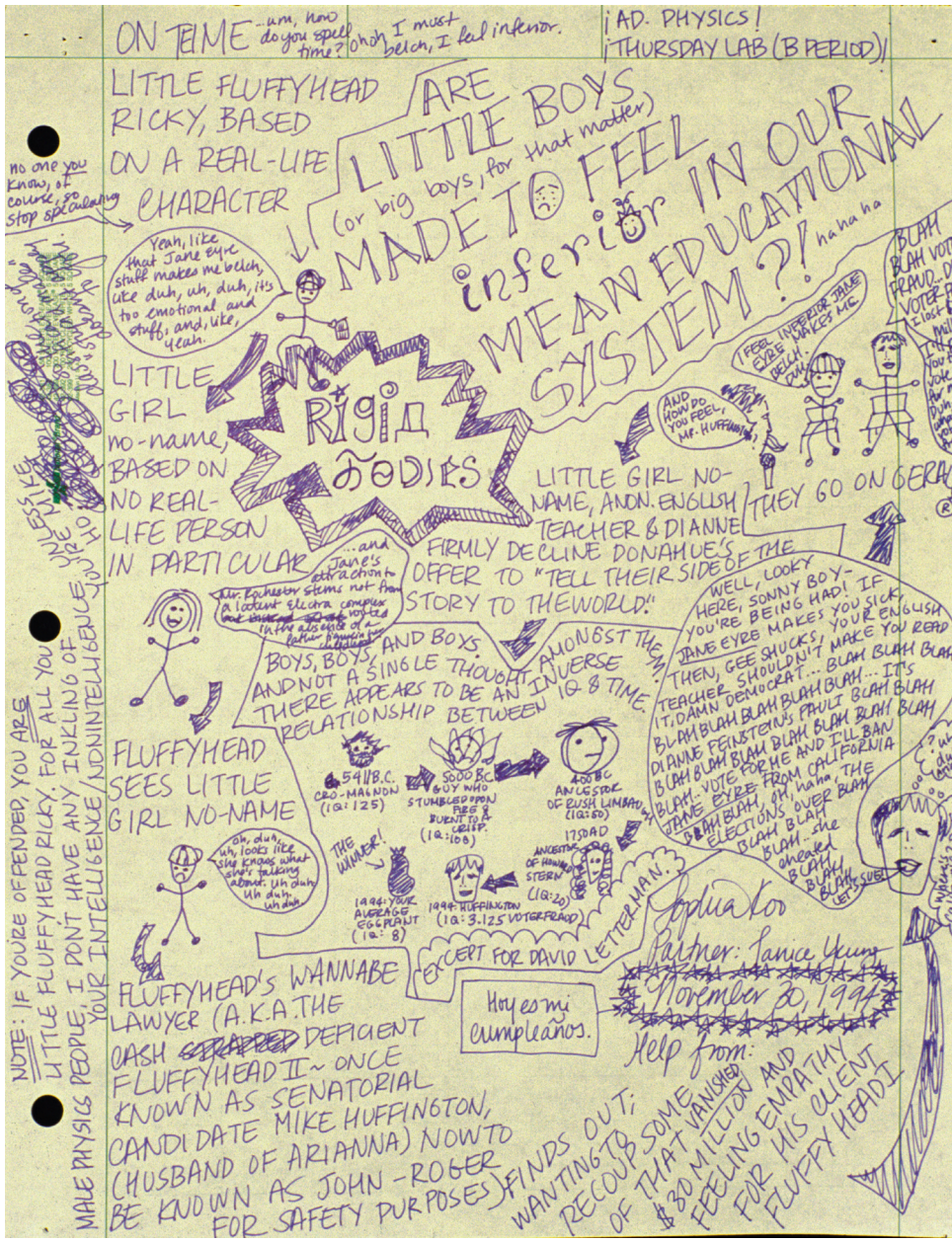
Newton's Second Law Lab

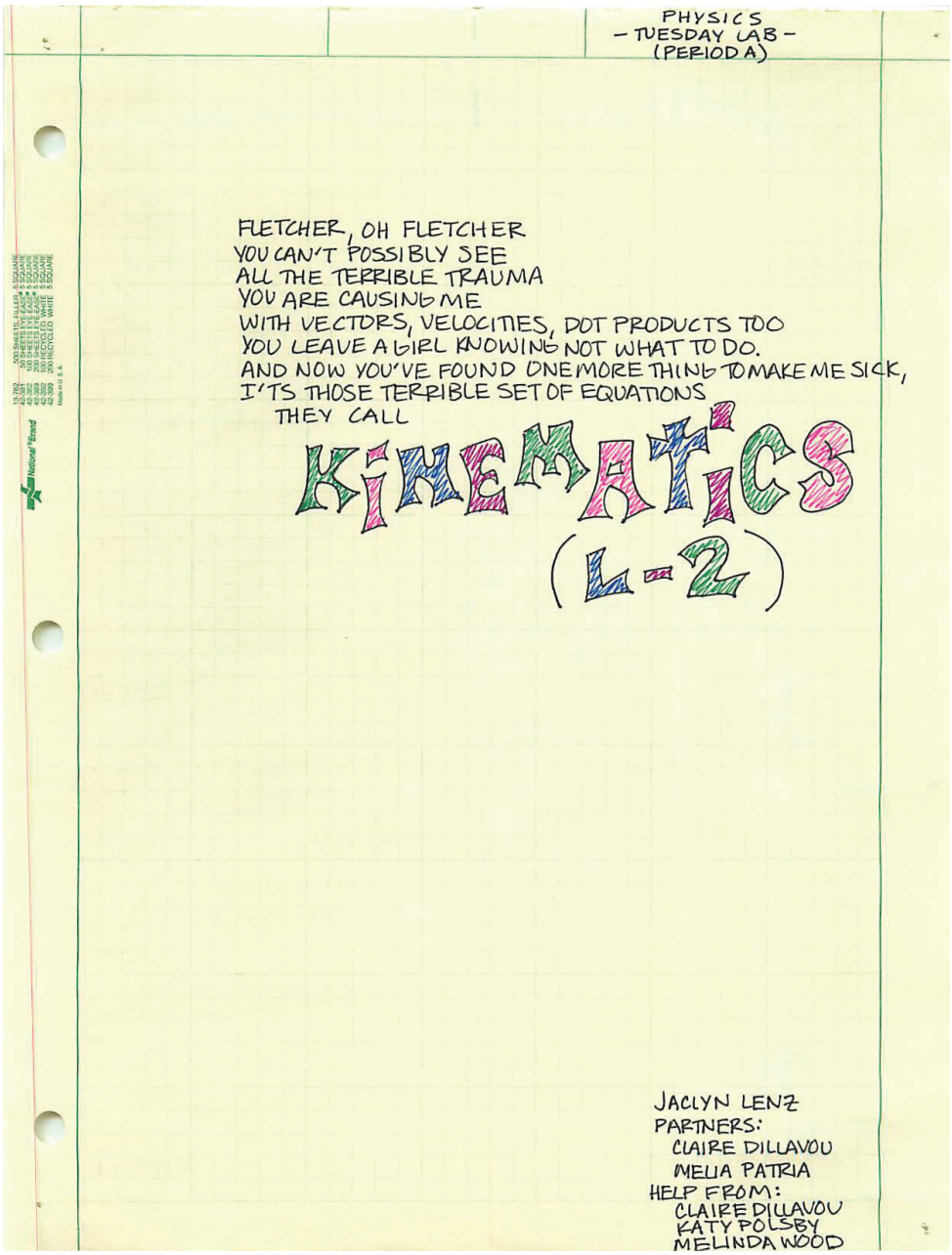
Centripetal Force Lab (and a nod to the MOB maneuver)



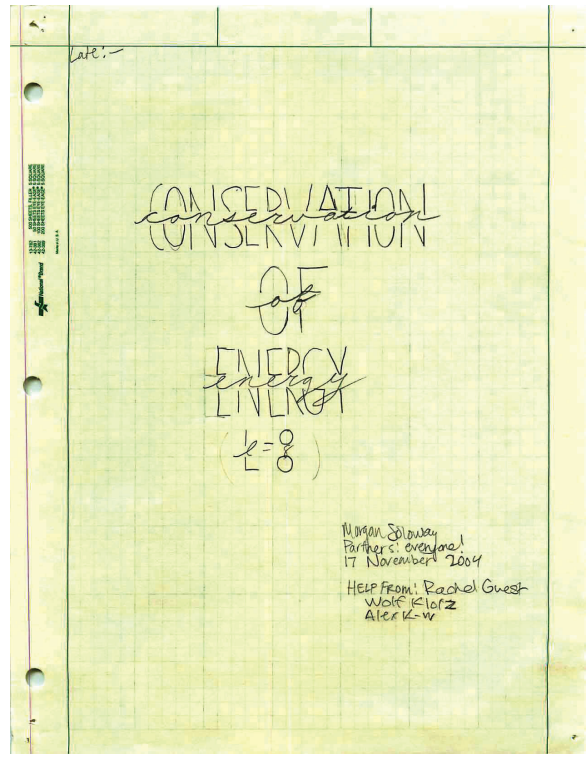
Vectors Lab (before "family values")




ON TEIME - um, how do you spell time? ohoh I must belch, I feel inferior.
¡AD. PHYSICS!
¡THURSDAY LAB (B PERIOD)!
LITTLE FLUFFYHEAD RICKY, BASED ON A REAL-LIFE CHARACTER
ARE LITTLE BOYS (or big boys, for that matter) MADE TO FEEL inferior IN OUR MEAN EDUCATIONAL SYSTEM?! ha ha ha
no one you know, of course, so stop speculating
Yeah, like that Jane eyre stuff makes me belch, like duh, uh, duh, it's too emotional and stuffi, and, like, yeah.
LITTLE GIRL no-name, BASED ON NO REAL-LIFE PERSON IN PARTICULAR
Rigid BODIES
I FEEL INFERIOR JANE EYRE MAKES ME BELCH. DUH.
AND HOW DO YOU FEEL, MR. HUFFINGTON?
BLAH BLAH VOTER FRAUD... DU VOTER FRO I lost Fo Millio I'll po you to look for me Duh, what's your
LITTLE GIRL NO-NAME, ANON. ENGLISH TEACHER & DIANNE FIRMLY DECLINE DONAHUE'S OFFER TO "TELL THEIR SIDE OF THE STORY TO THE WORLD!"
THEY GO ON GERA
...and Jane's extraction is not from a violent electra complex [illegible] father's homicide
BOYS, BOYS, AND BOYS. AND NOT A SINGLE THOUGHT THERE APPEARS TO BE AN INVERSE RELATIONSHIP BETWEEN IQ & TIME.
AMONGST THEM!
WELL, LOOKY HERE, SONNY BOY- YOU'RE BEING HAD! IF JANE EYRE MAKES YOU SICK, YOUR ENGLISH TEACHER SHOULDN'T MAKE YOU READ IT, DAMN DEMOCRAT... BLAH BLAH BLAH DIANNE FEINSTEIN'S FAULT BLAH BLAH BLAH BLAH BLAH BLAH BLAH BLAH. VOTE FOR HE AND I'LL BAN JANE EYRE FROM CALIFORNIA SCHOOLS. OH, haha, THE BLAH BLAH ELECTIONS OVER BLAH BLAH BLAH... she cheated BLAH BLAH LET'S SUE!
FLUFFYHEAD SEES LITTLE GIRL NO-NAME
5411 B.C. CRO-MAGNON (IQ: 125)
5000 BC GUY WHO STUMBLED UPON FIRE & BURNT TO A CRISP. (IQ: 106)
400 BC ANGLESIDE OF BUSH LIMBAUGH (IQ: 50)
Oh, duh, uh, looks like she knows what she's talking about. Uh duh. Uh duh. Uh duh.
THE WINNER!
1994: YOUR AVERAGE EGGPLANT (IQ: 8)
1994: HUFFINGTON (IQ: 3.125 VOTER FRAUD)
1750 AD ANCESTOR OF HOWARD STERN (IQ: 20)
EXCEPT FOR DAVID LETTERMAN.
Hoy es mi cumpleaños.
Sophia Kor
Partner: Janice Yeung
November 30, 1994
Help from:
FLUFFYHEAD'S WANNABE LAWYER (A.K.A. THE CASH ~~GRABBER~~ DEFICIENT FLUFFYHEAD II ~ ONCE KNOWN AS SENATORIAL CANDIDATE MIKE HUFFINGTON, (HUSBAND OF ARIANNA) NOW TO BE KNOWN AS JOHN-ROGER FOR SAFETY PURPOSES) FINDS OUT; WANTING TO RECOUP SOME OF THAT VANISHED $30 MILLION AND FEELING EMPATHY FOR HIS CLIENT FLUFFY HEAD!
NOTE: IF YOU'RE OFFENDED, YOU ARE LITTLE FLUFFYHEAD RICKY. FOR ALL YOU MALE PHYSICS PEOPLE, I DON'T HAVE ANY INKLING OF YOUR INTELLIGENCE/NONINTELLIGENCE


PHYSICS
– TUESDAY LAB –
(PERIOD A)
FLETCHER, OH FLETCHER
YOU CAN'T POSSIBLY SEE
ALL THE TERRIBLE TRAUMA
YOU ARE CAUSING ME
WITH VECTORS, VELOCITIES, DOT PRODUCTS TOO
YOU LEAVE A GIRL KNOWING NOT WHAT TO DO.
AND NOW YOU'VE FOUND ONE MORE THING TO MAKE ME SICK,
I'TS THOSE TERRIBLE SET OF EQUATIONS
THEY CALL
KINEMATICS
(L-2)
JACLYN LENZ
PARTNERS:
CLAIRE DILLAVOU
MELIA PATRIA
HELP FROM:
CLAIRE DILLAVOU
KATY POLSBY
MELINDA WOOD

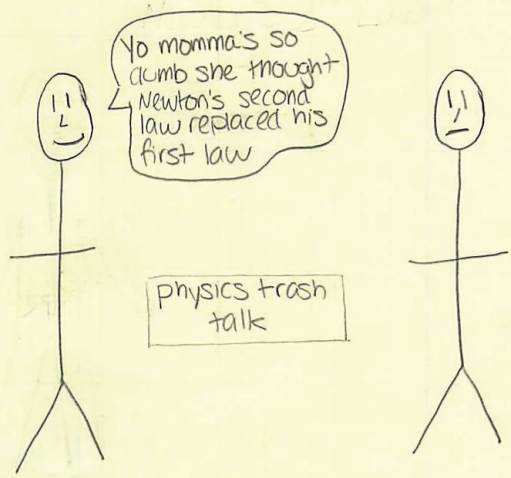
Conservation of Energy Lab



Millikan Oildrop Lab

Late : N/A

Newton's Second Law
L-6

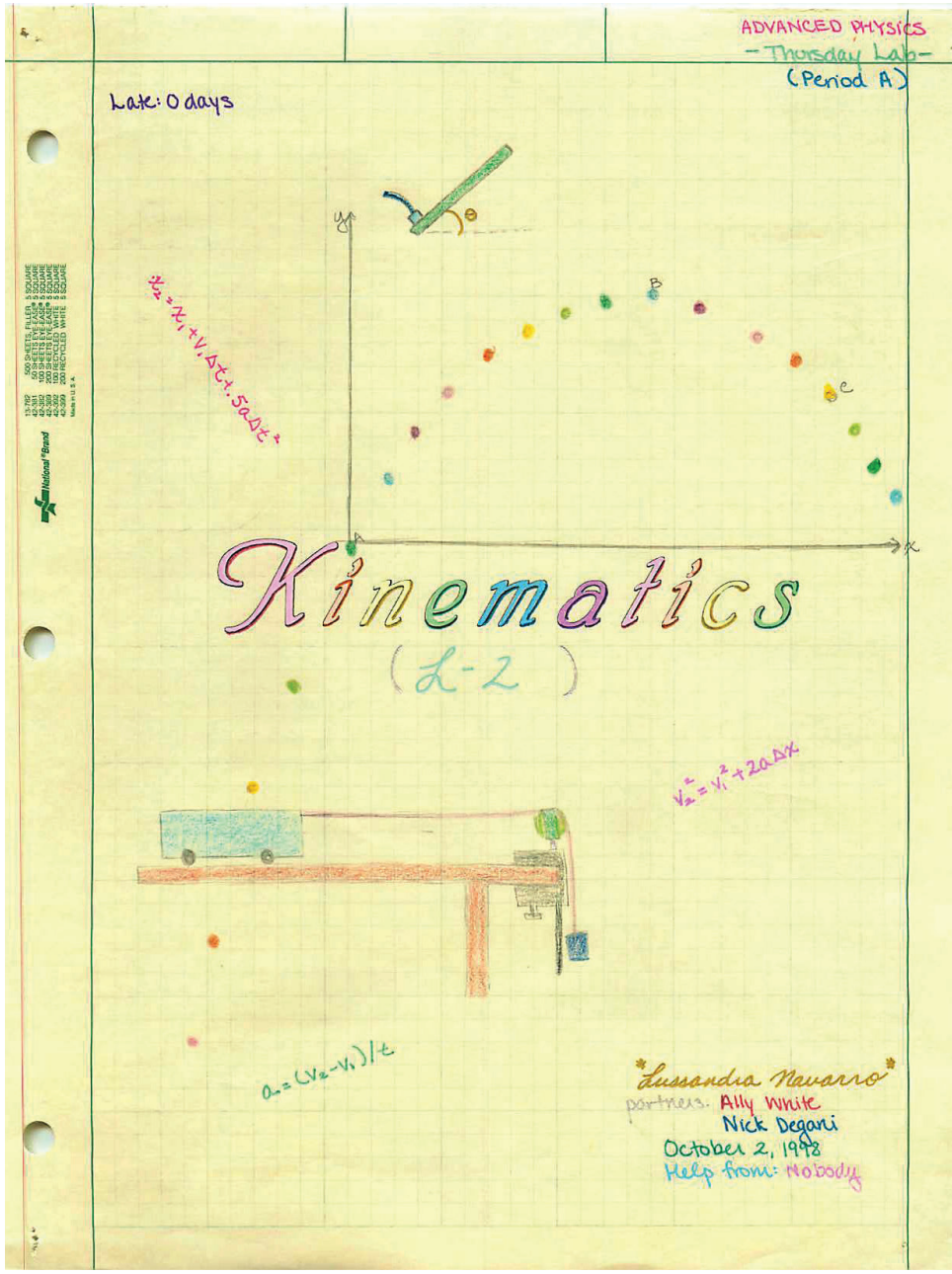


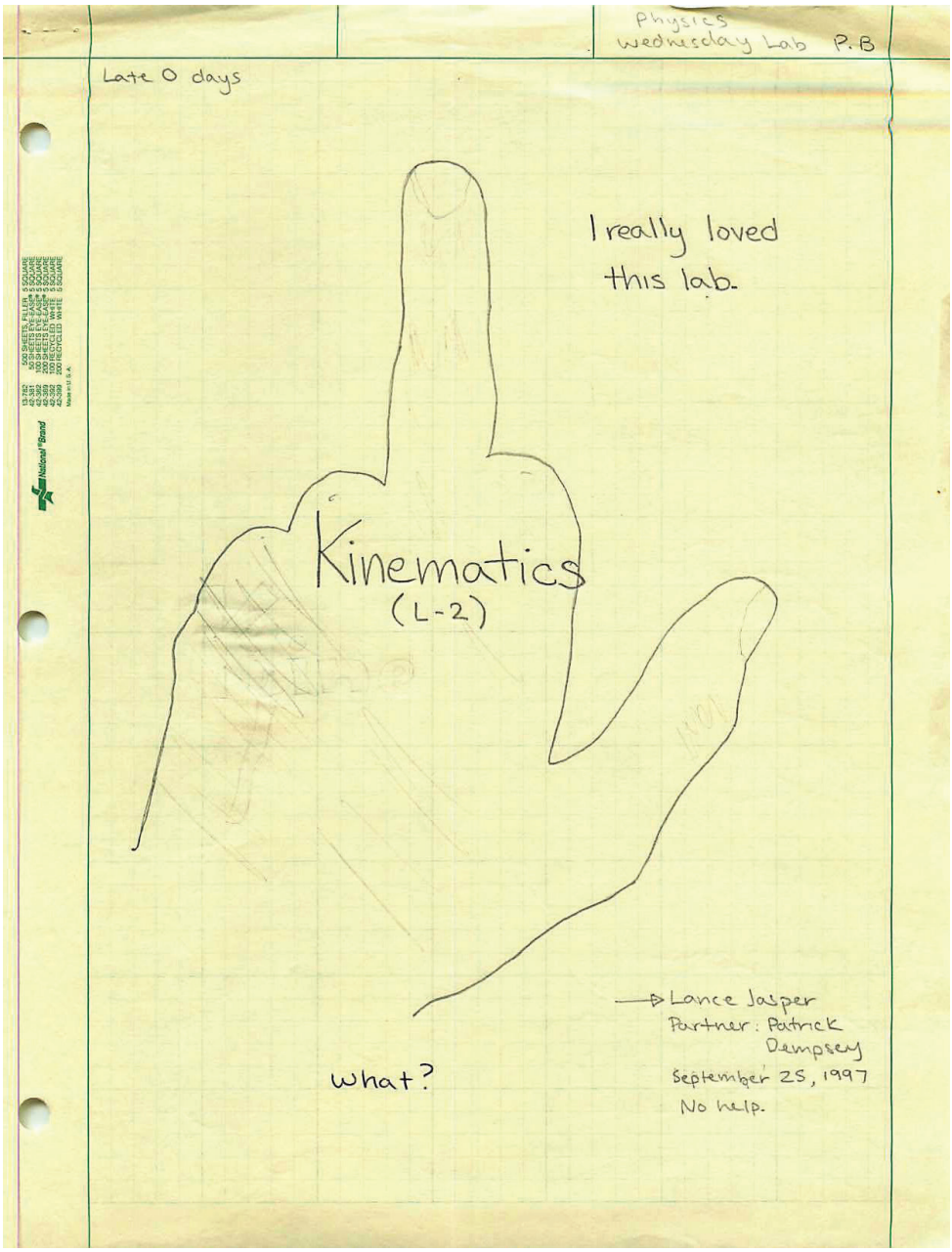
Help From: N/A

Name: Caroline Harvey
Partners: Erin Annick
Charlie Patterson
Date: 10/9/13
Period: E

ADVANCED PHYSICS
TUESDAY (THURSDAY) LAB
B PERIOD
Children! Time to come in for your cookies and MILLIKAN (S OIL DROP EXPERIMENT) After all, it's getting late, and you're only in ELEMENTARY (CHARGE UNIT) school!
CAITLIN WHEELER
PARTNERS: ANNE GIFFORD
DEMETRIA MALLOY
HELP FROM: SARAH BARTLETT
FEBRUARY 21, 1996

Centripetal Force Lab (that's the Kama Sutra they are holding up)


ADVANCED PHYSICS
-Thursday Lab-
(Period A)
Late: 0 days
θ
y
B
C
x
$y_2 = y_1 + v_1 \Delta t + .5 a \Delta t^2$
Kinematics
(L-2)
$v_2^2 = v_1^2 + 2a\Delta x$
$a = (v_2 - v_1)/t$
Lussandra Navarro
partners: Ally White
Nick Degani
October 2, 1998
Help from: Nobody


Physics
Wednesday Lab P.B
Late 0 days
I really loved this lab.
Kinematics
(L-2)
Lance Jasper
Partner: Patrick Dempsey
September 25, 1997
No help.
what?

Kinematics Lab

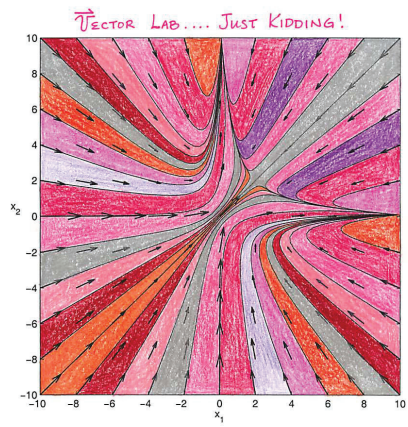
Honors Physics
– Tuesday Lab –

LATE : 0 day

(Period A)

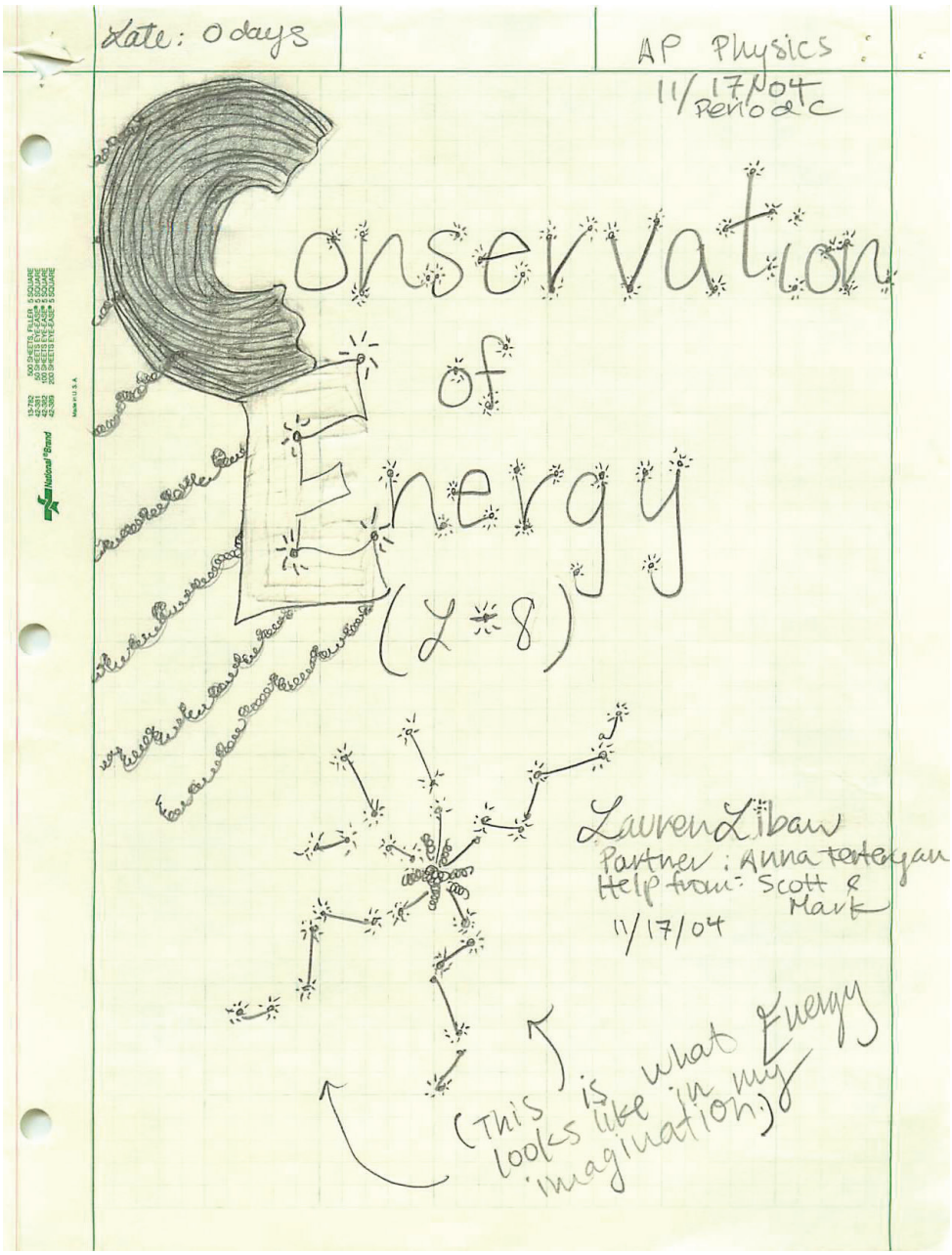
Conservation of Energy

(L – 11)



Conservation of Energy Lab

Colette Chen
Partner: None (class)
November 1, 2006
Help From: No One


Late: 0 days
AP Physics
11/17/04
Period C
Conservation
of
Energy
(2*8)
Lauren Liban
Partner: Anna Tetelgan
Help from: Scott & Mark
11/17/04
(This is what Energy looks like in my imagination.)

LATE: 0 DAYS

ADV. PHYSICS - E Period - Friday Lab

FRICTION BABY!

CHARLIE FINDS A FRIEND.

L-4

THIS BIT OF STUPIDITY HAS BEEN BROUGHT TO YOU BY:

SUNJAY LAD

PARTNER: DAN WHITMORE

OCTOBER 16, 1998

HELP FROM: DAN + PABLO PICASSO

Speak! - Charlie - Speak! (OR: Something-Humping-Is-Humping-Something)

HORRENDOUSLY LATE.

PHYSICS
TUESDAY LAB
8 PERIOD

What results when you take an obsessive-compulsive lab-working physics student and a lab that's about two questrons too long?

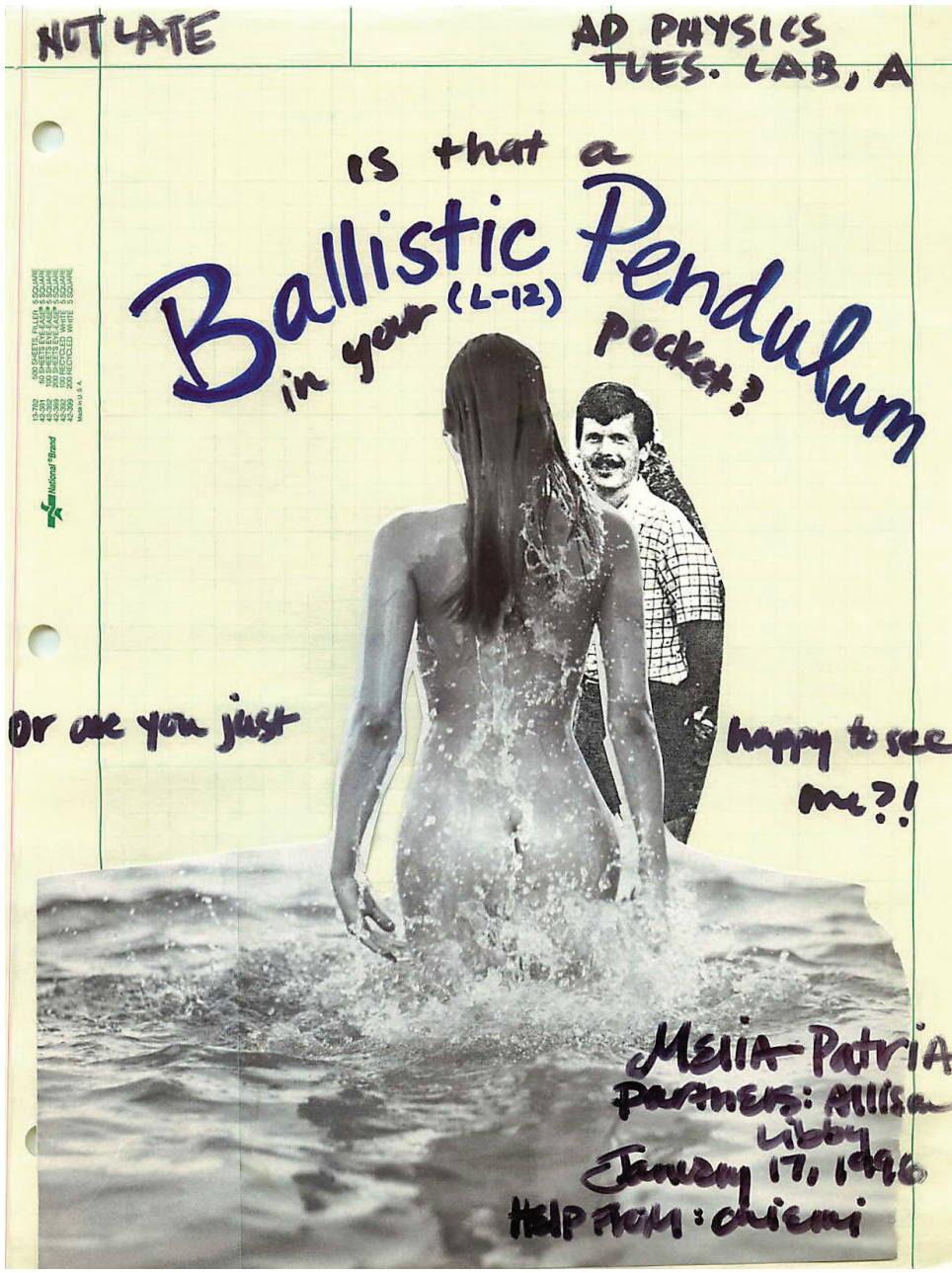
Why, a COLLISION between her IMPULSE towards procrastination and her need for perfect lab results, resulting in a very late lab (but a well-educated and terminally enlightened student, as well)

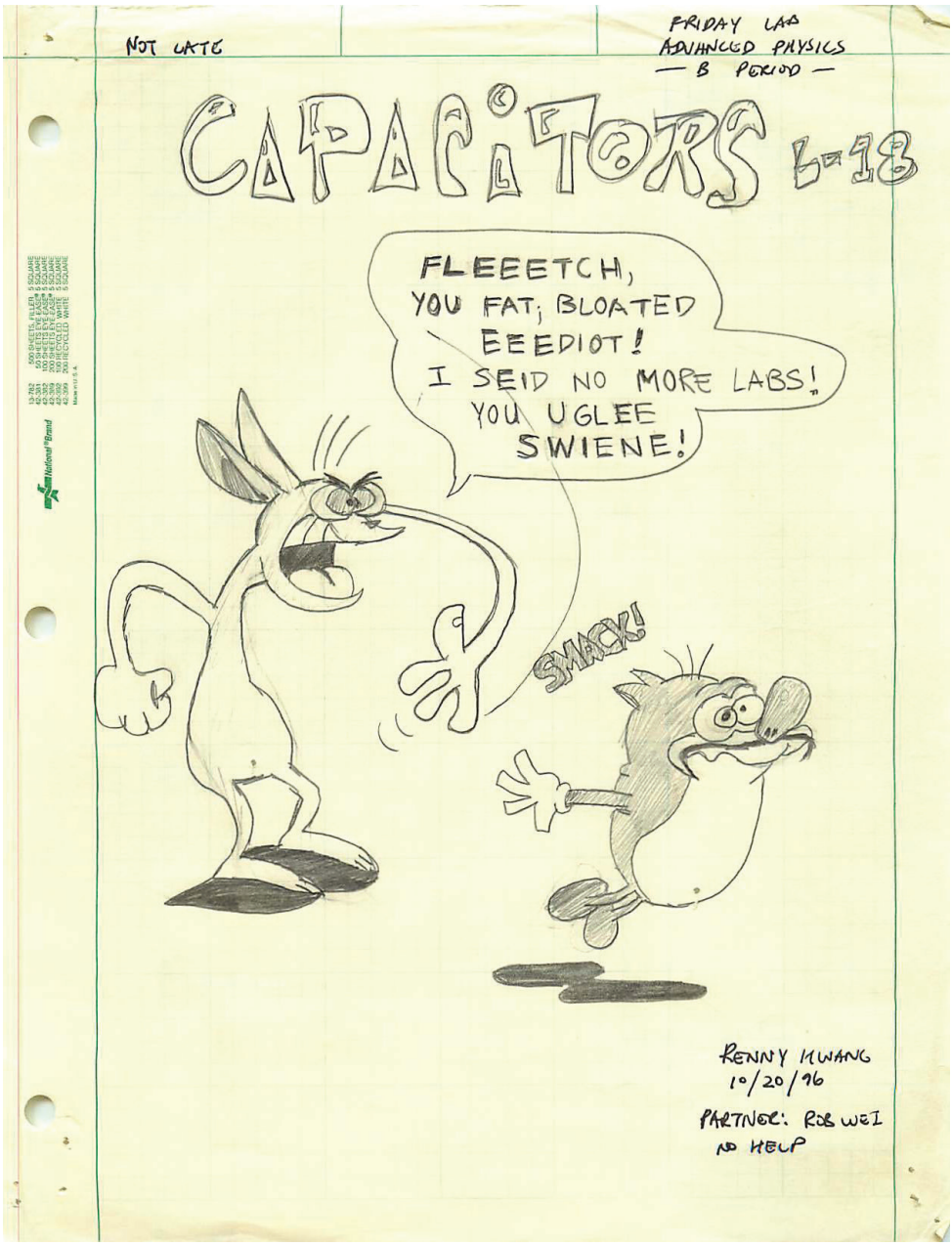
(4 – 8)

So, Here it is. Hope YOU like it, 'cause I sure didn't.

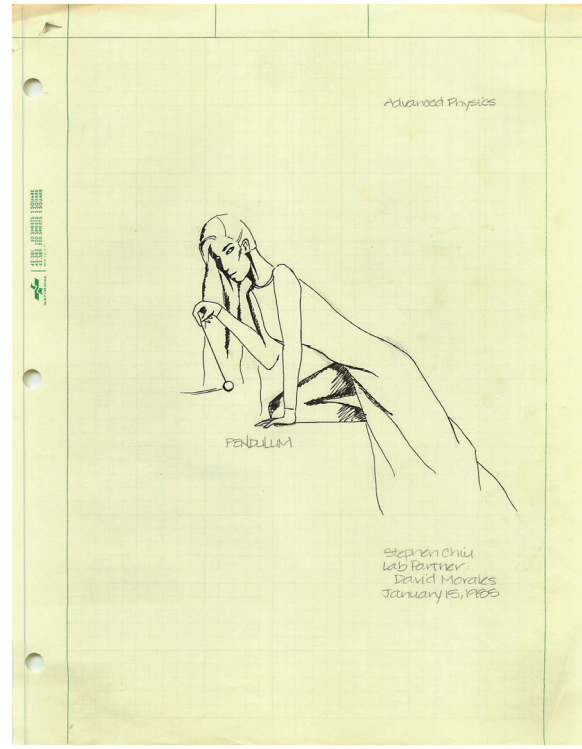
⇒ Sylvie Andrews
Partners: don't even remember
Help from: Audrey Kim

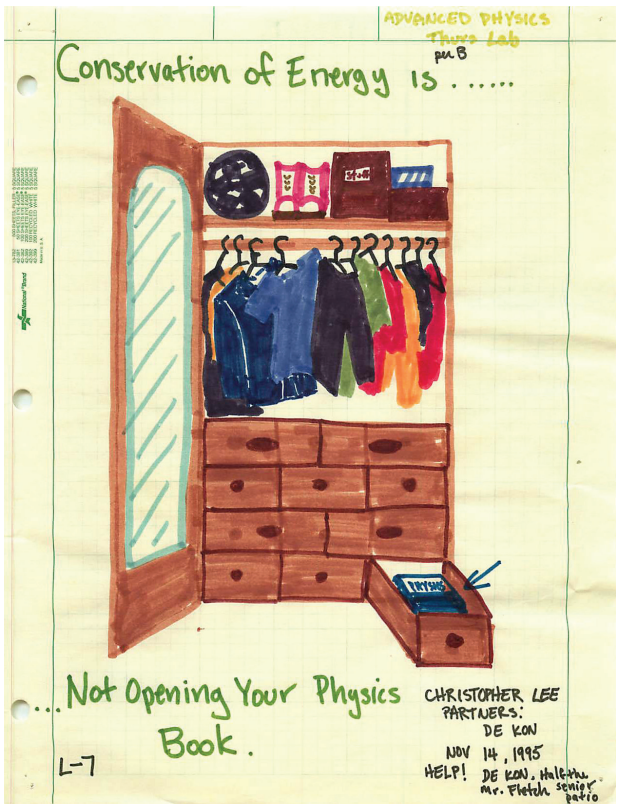
Ballistic Pendulum Lab (before the *family values* policty)



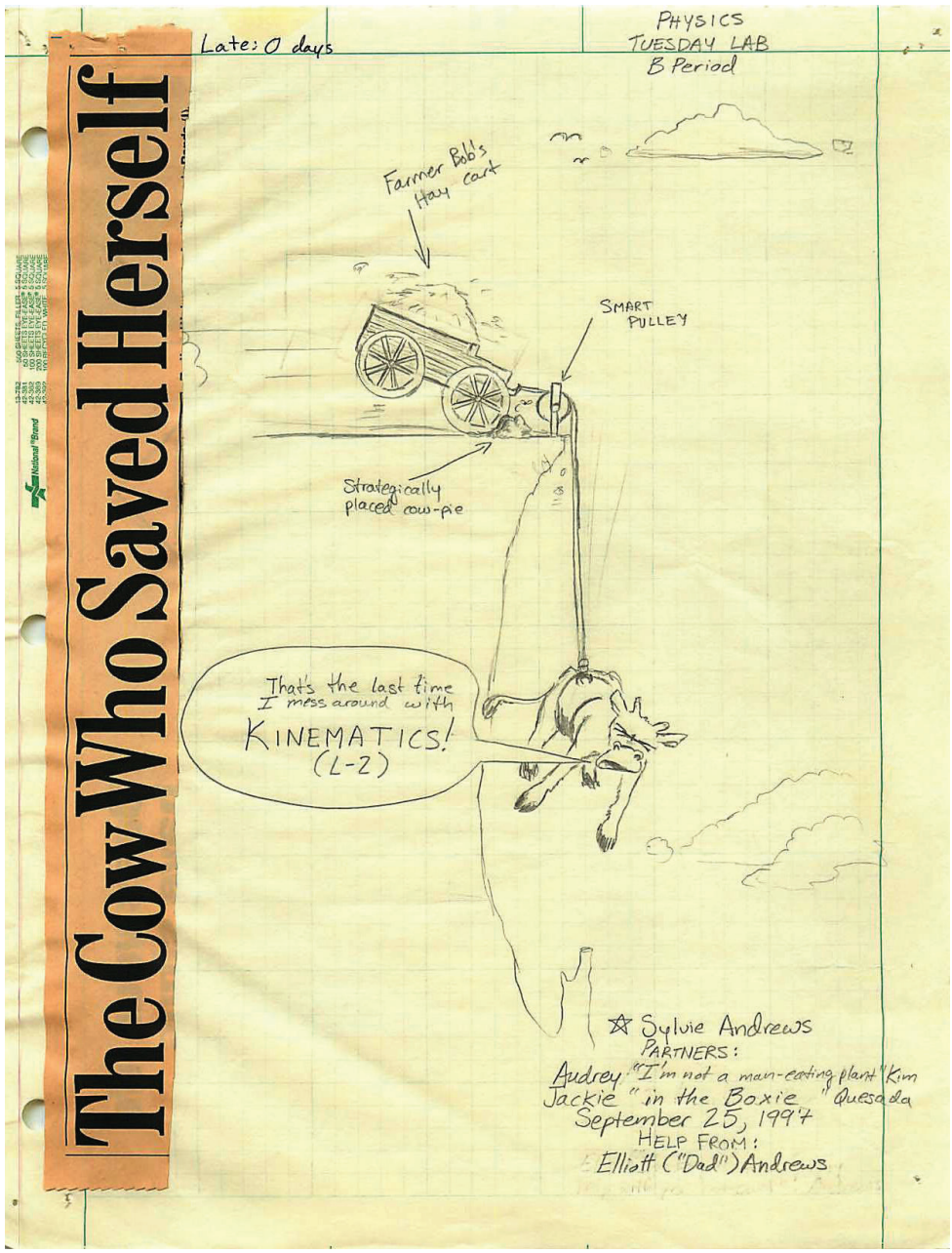

NOT LATE
FRIDAY LAB
ADVANCED PHYSICS
— B PERIOD —
CAPACITORS L-18
FLEEETCH, YOU FAT, BLOATED EEEDIOT! I SEID NO MORE LABS! YOU UGLEE SWIENE!
SMACK!
RENNY MWANG
10/20/96
PARTNER: ROB WEI
NO HELP

Pendulum Lab





Conservation of Energy Lab


The Cow Who Saved Herself
Late: 0 days
PHYSICS
TUESDAY LAB
B Period
Farmer Bob's Hay cart
SMART PULLEY
Strategically placed cow-pie
That's the last time I mess around with KINEMATICS! (L-2)
☆ Sylvie Andrews
PARTNERS:
Audrey "I'm not a man-eating plant" Kim
Jackie "in the Boxie" Quesada
September 25, 1997
HELP FROM:
Elliott ("Dad") Andrews

½ period

Late: ~~MWF 9/15~~

Physics

Wednesday Lab

Period B

I'm a very naughty little girl.

Newton's Second Law

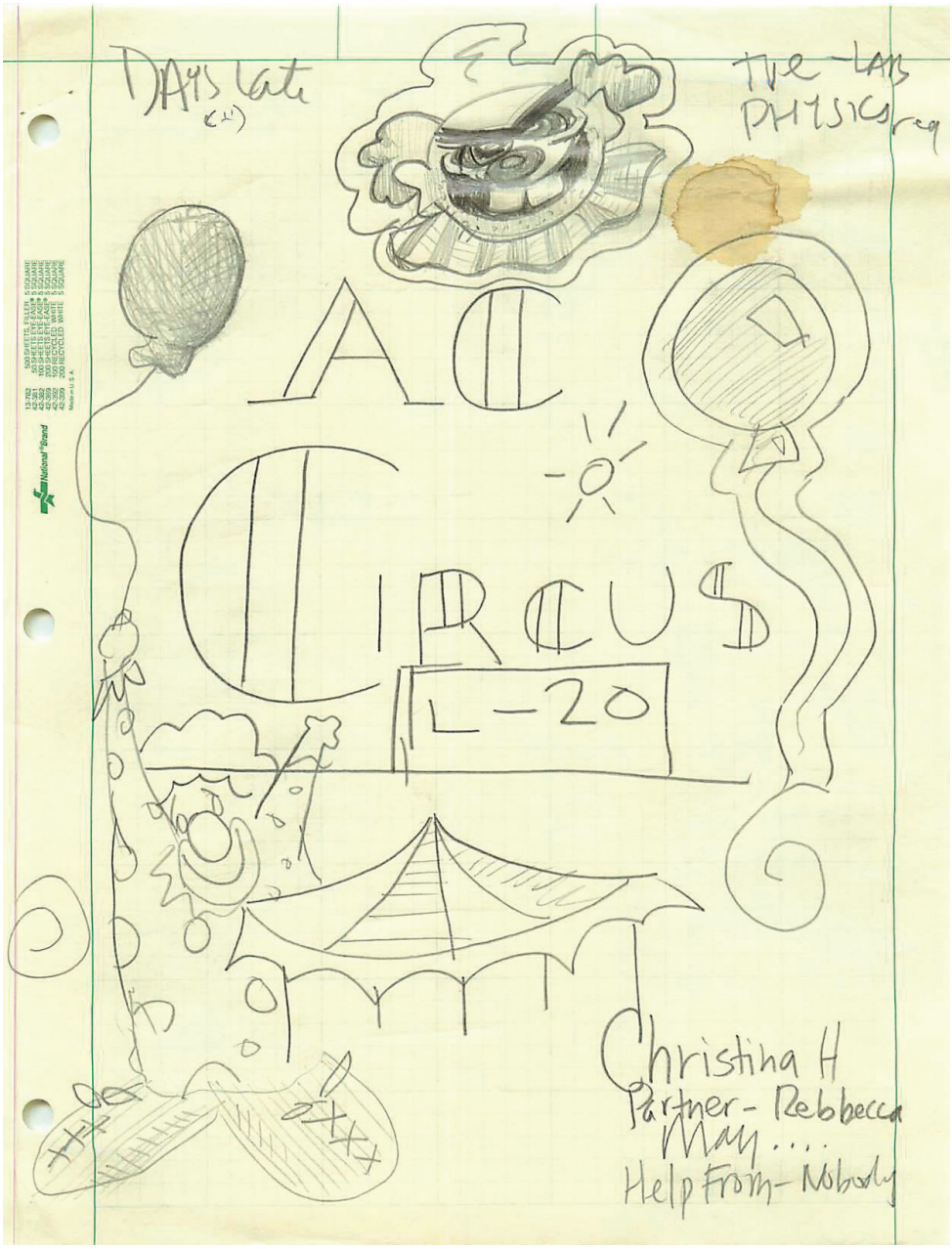
(L-3)

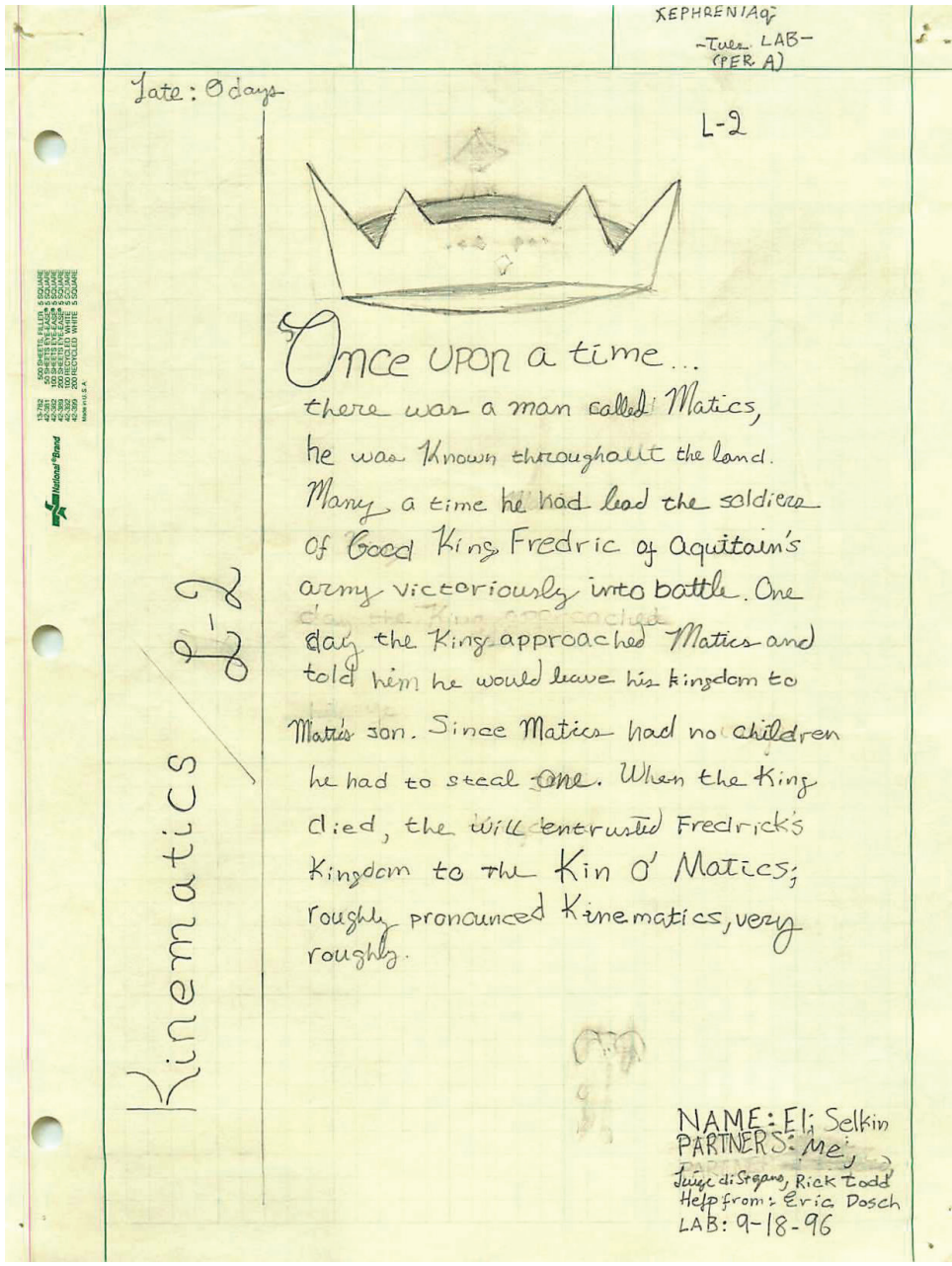
⇒ Brian Penrod

Partners: Ryan Holmes+
Micheal Rosenthal

October 1st, 97

Help from: Kevin Wells+
Jenny Ewig


DAYS late
(-1)
THE LAWS PHYSICS req
AC
CIRCUS
L-20
Christina H
Partner- Rebbecca
May ...
Help From- Nobody



XEPHRENIAq
-Tues LAB-
(PER A)

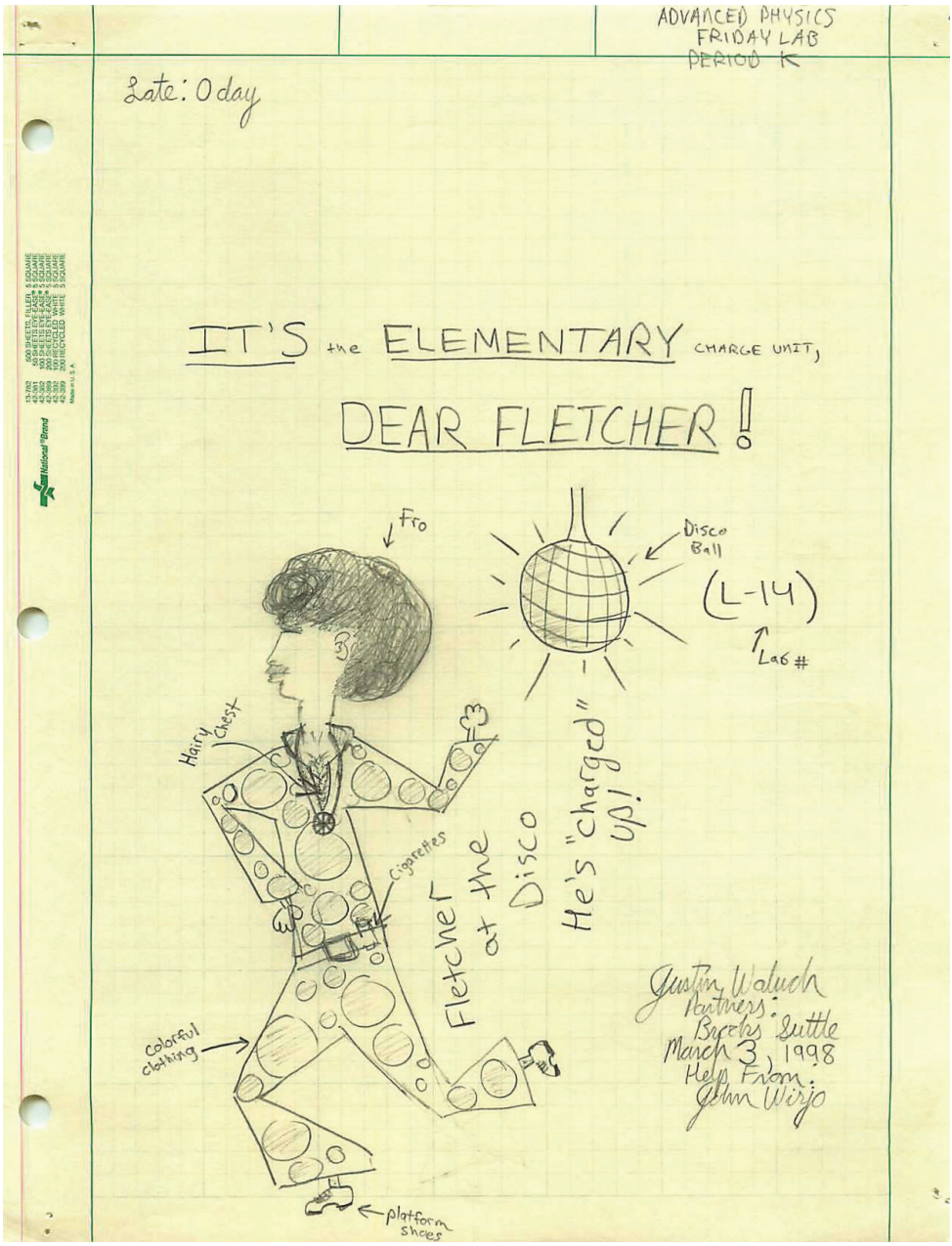
Late: 0 days

L-2

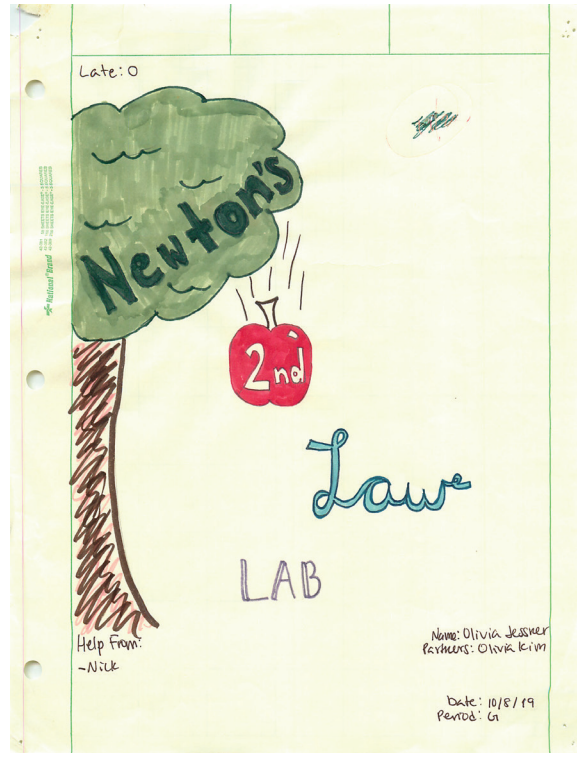
Once upon a time...
there was a man called Matics,
he was known throughout the land.
Many a time he had lead the soldiers
of Good King Fredric of Aquitain's
army victoriously into battle. One
day the King approached Matics and
told him he would leave his kingdom to
Matic's son. Since Matics had no children
he had to steal one. When the King
died, the will entrusted Fredrick's
kingdom to the Kin O' Matics;
roughly pronounced Kinematics, very
roughly.

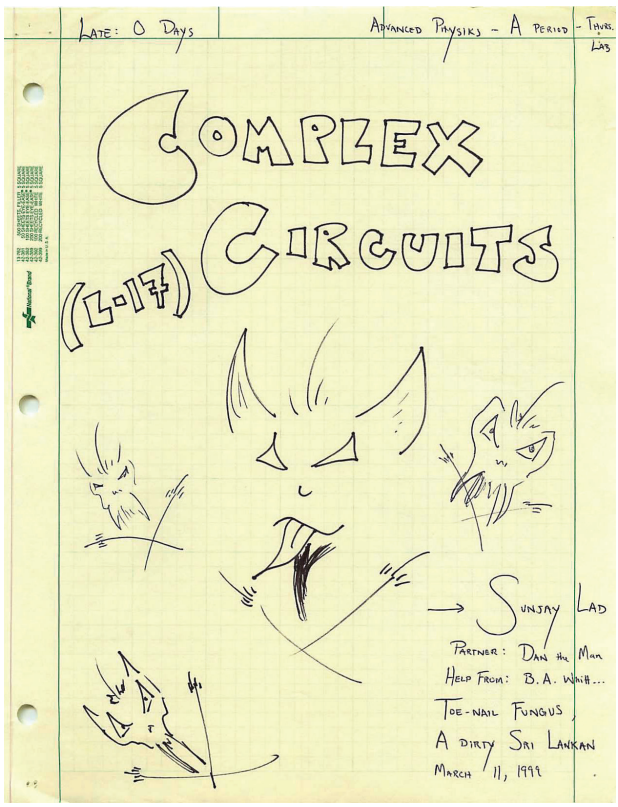
Kinematics p-2

NAME: El Selkin
PARTNERS: Me,
Luigi diSegano, Rick Todd
Help from: Eric Dosch
LAB: 9-18-96


ADVANCED PHYSICS
FRIDAY LAB
PERIOD
Late: 0 day
IT'S the ELEMENTARY CHARGE UNIT,
DEAR FLETCHER!
Fro
Disco Ball
(L-14)
Lab #
Hairy Chest
Cigarettes
colorful clothing
platform shoes
Fletcher at the Disco
He's "charged" up!
Justin Walach
Partners: Brooks Suttle
March 3, 1998
Help From: John Wirjo

Newton's Second Law lab





Complex Circuits Lab

late: 1.5 days

L-12

That was the most atrocious movie I have ever seen. Why did we go in the first place?

Catch Cinemas Presents

A Fletcher-Rabbit Production

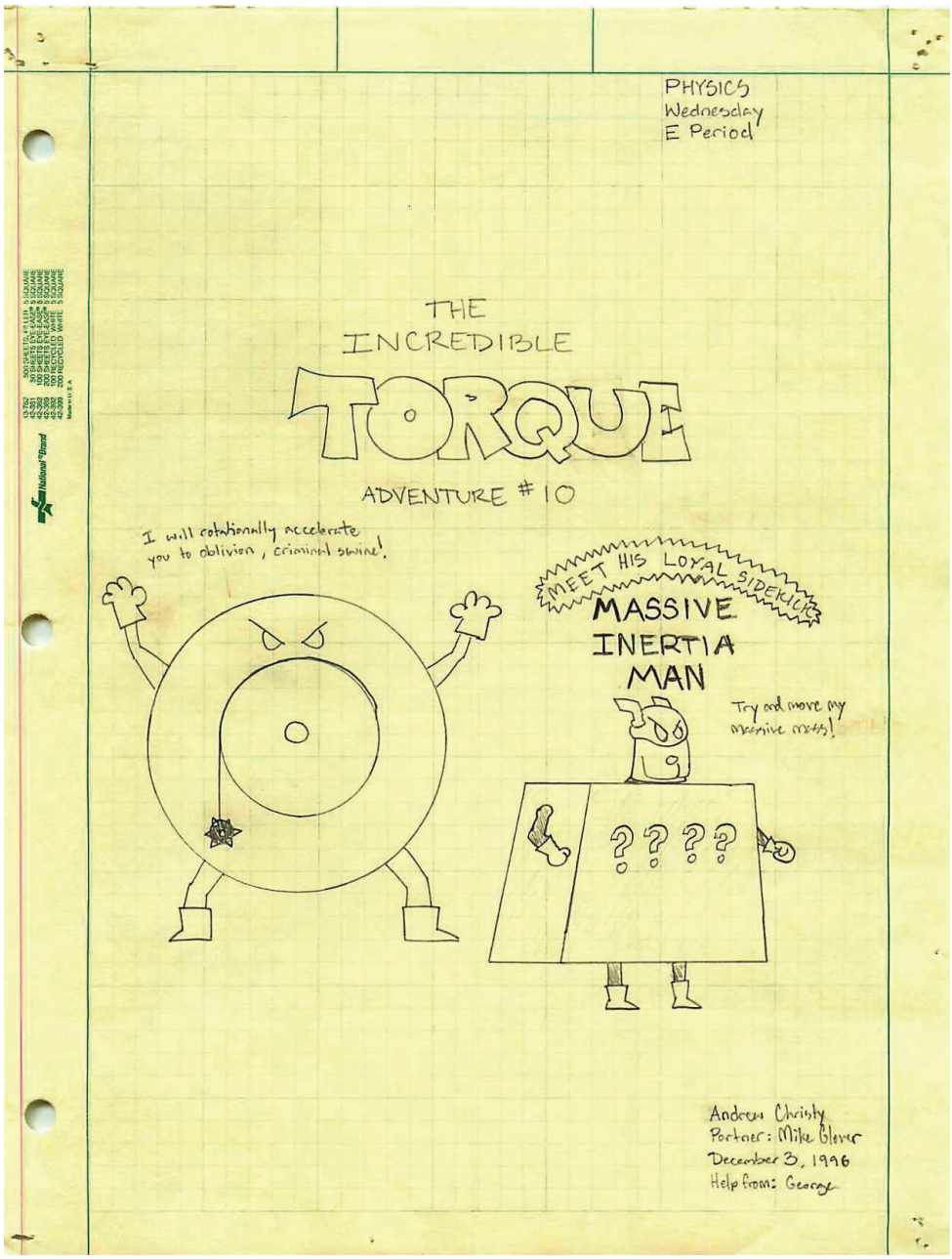
Watch in awe as the cities are decimated under the wrath of the evil Ballistic Pendulum. Feel the low frequency resonance as the Ballistic Pendulum tears through the Physics room. Watch as Andrew selflessly throws himself in front of the ball to save the walls, but fails miserably...

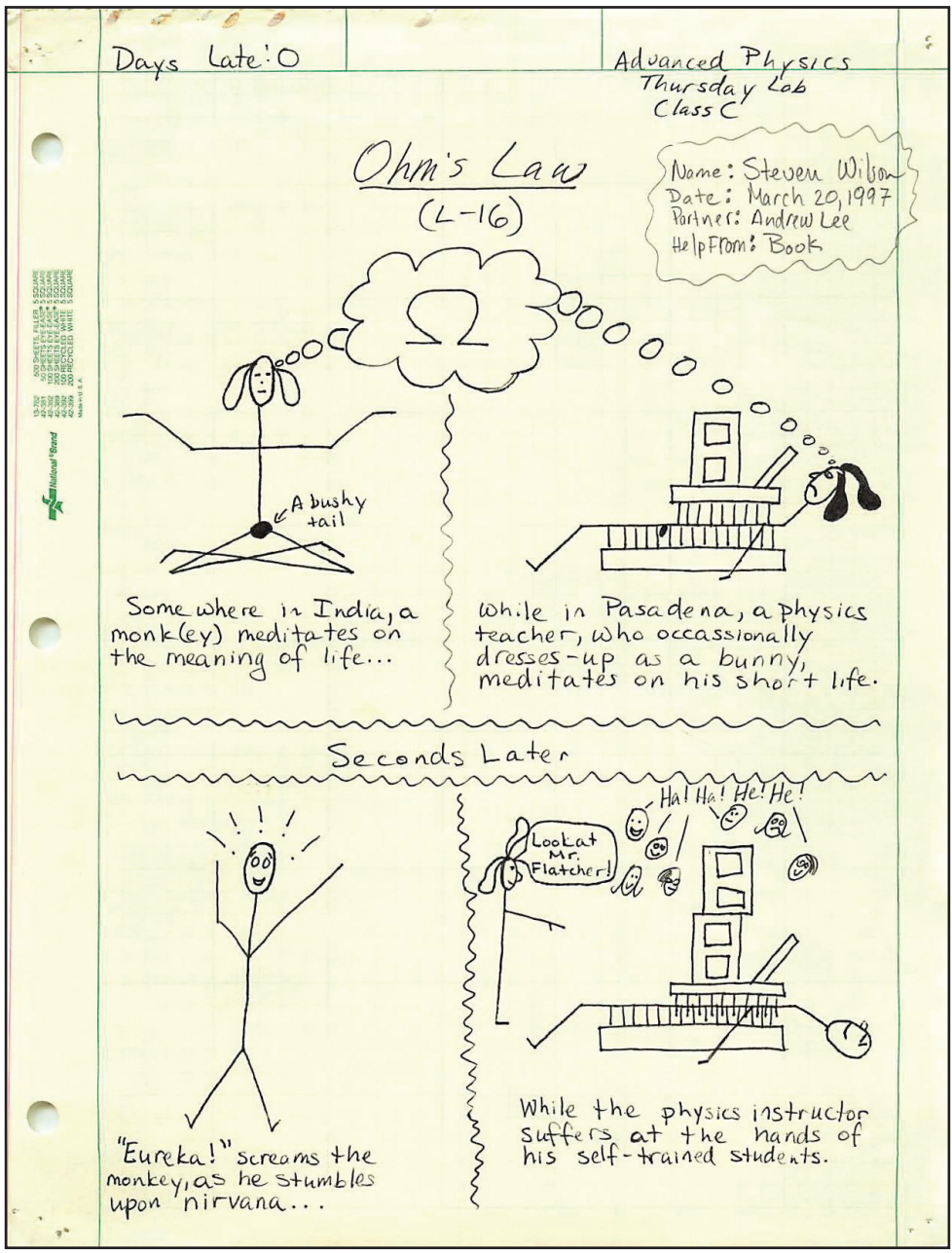
Help From: Chris Ward & Luigi

Partners: Sarah Barnum & Rick Todd

Name: Eli Selkin

Date: 1-14-97


PHYSICS
Wednesday
E Period
THE
INCREDIBLE
TORQUE
ADVENTURE #10
I will rotationally accelerate you to oblivion, criminal swine!
MEET HIS LOYAL SIDEKICK:
MASSIVE
INERTIA
MAN
Try and move my massive mass!
????
Andrew Christy
Partner: Mike Glover
December 3, 1996
Help from: George


Days Late: 0
Advanced Physics
Thursday Lab
Class C
Ohm's Law
(L-16)
Name: Steven Wilson
Date: March 20, 1997
Partner: Andrew Lee
Help From: Book
A bushy tail
Somewhere in India, a monk(ey) meditates on the meaning of life...
While in Pasadena, a physics teacher, who occassionally dresses-up as a bunny, meditates on his short life.
Seconds Later
"Eureka!" screams the monkey, as he stumbles upon nirvana...
Look at Mr. Flatcher!
Ha! Ha! He! He!
While the physics instructor suffers at the hands of his self-trained students.

Physics
Wednesday LAB
Period B

Late: 0

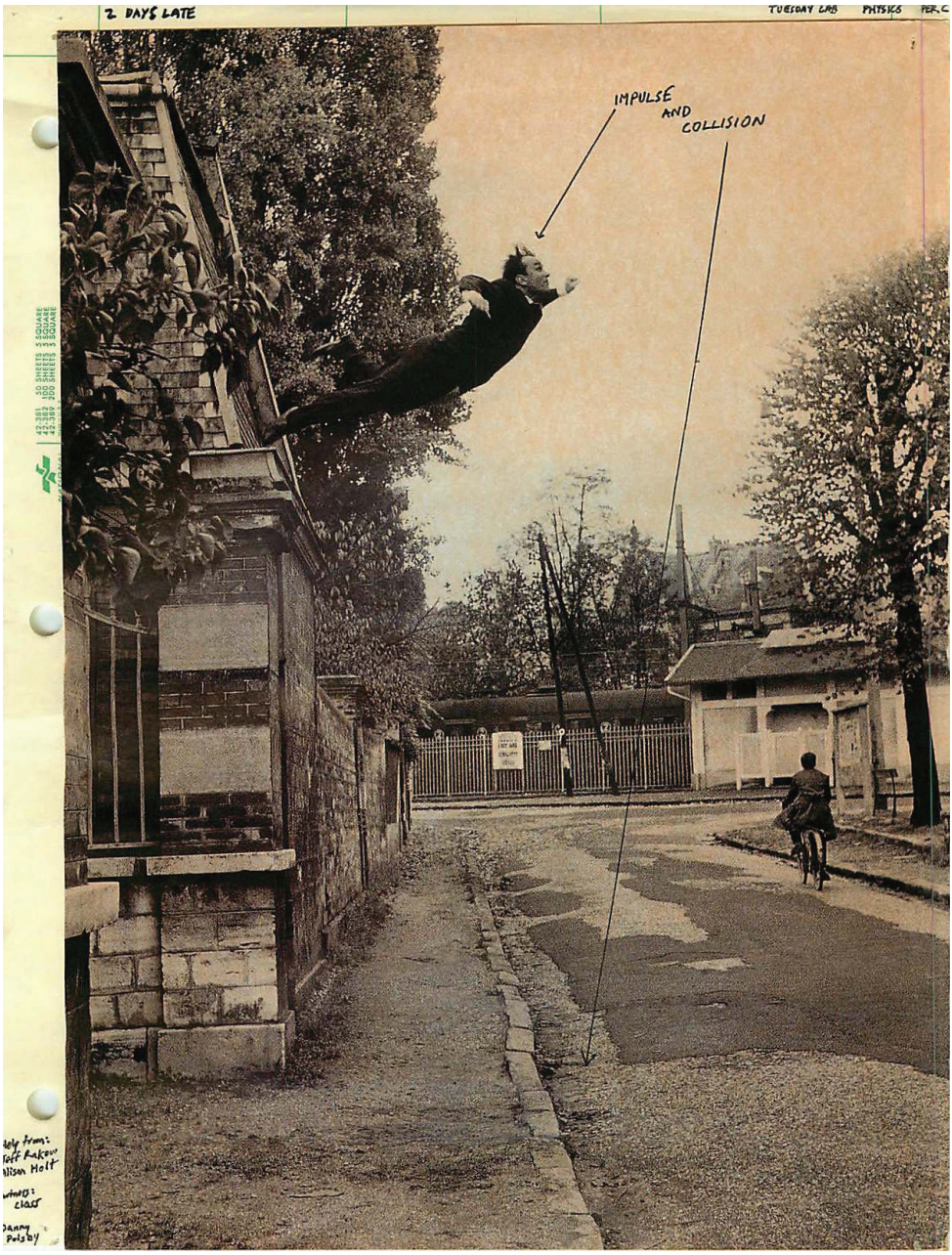
THIS IS WHAT HAPPENS TO YOU AFTER THE COMPLETION OF A FLETCHER LAB .....

Katherine Treadwell
Partner: S. Wong
10/17/97

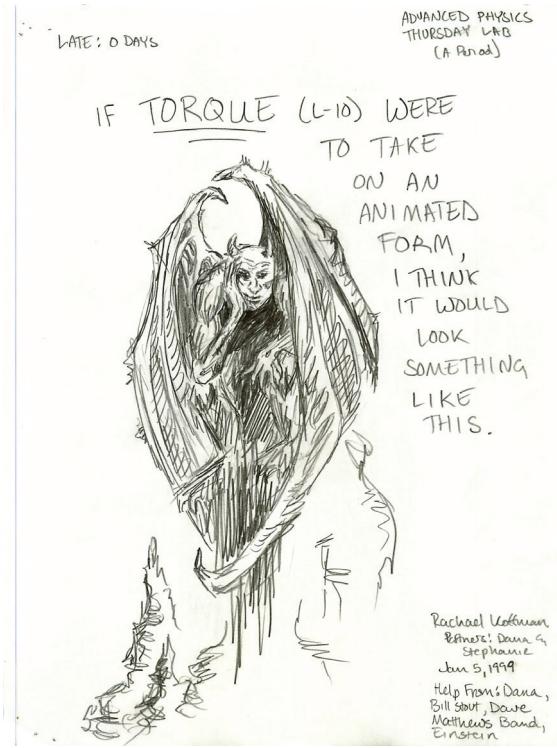
Help From: Sonja

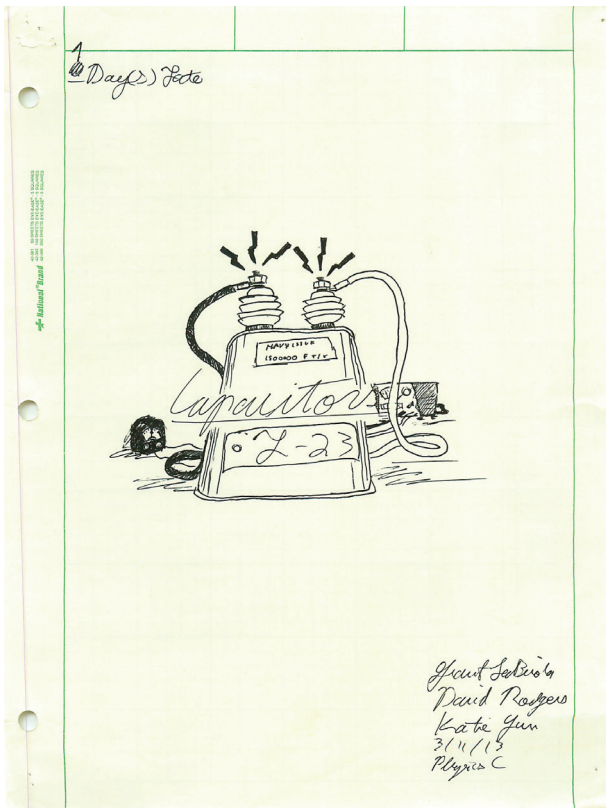
NEWTON'S SECOND LAW ⇒ all LABS are hard! (L-3)

.....then you get over it and start dressing like a Japanese school girl in a sailor suit

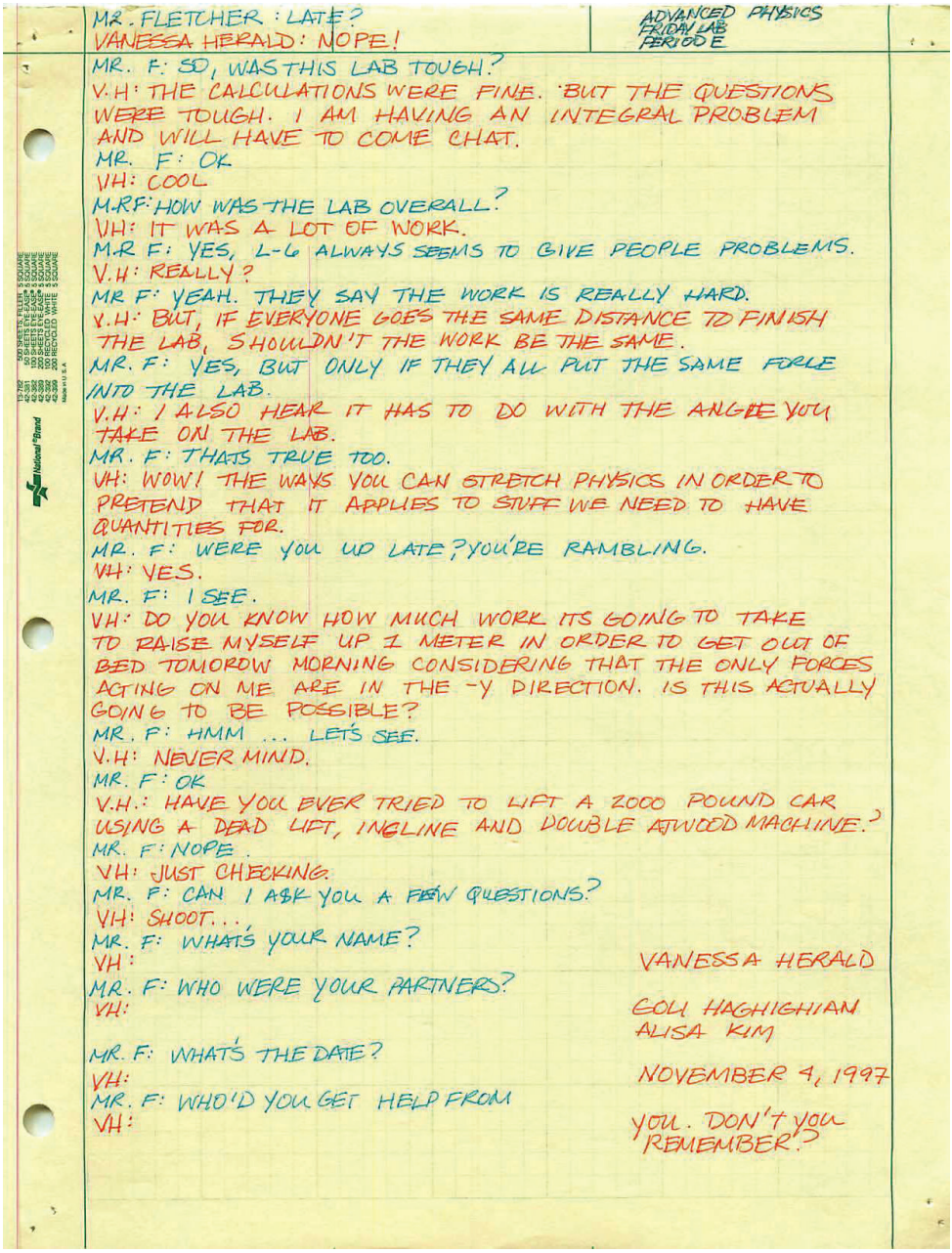

2 DAYS LATE
TUESDAY LAB PHYSICS
IMPULSE AND COLLISION

Torque Lab





Capacitors Lab

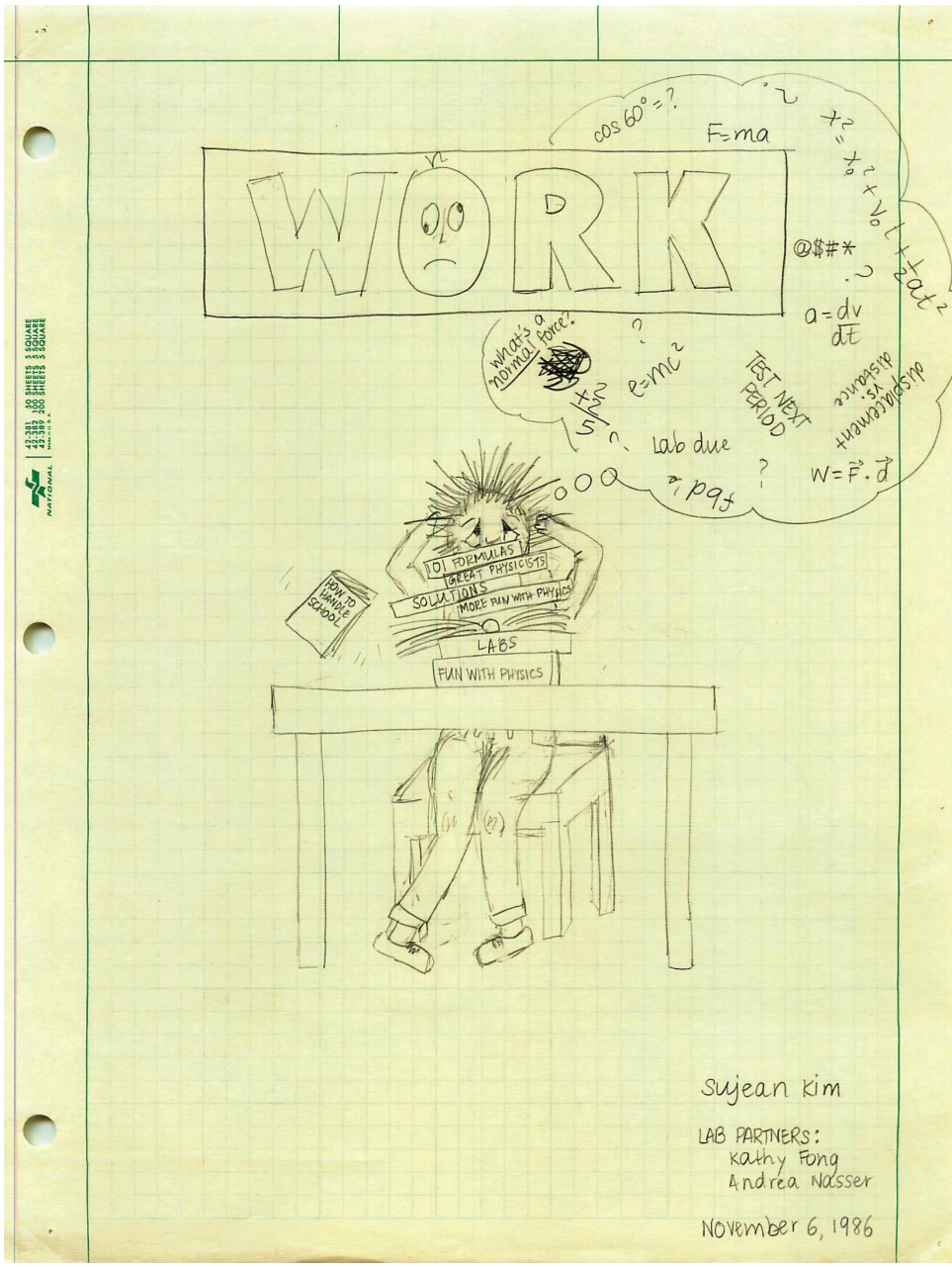


MR. FLETCHER: LATE?
VANESSA HERALD: NOPE!

ADVANCED PHYSICS
FRIDAY LAB
PERIOD E

MR. F: SO, WAS THIS LAB TOUGH?
V.H: THE CALCULATIONS WERE FINE. BUT THE QUESTIONS WERE TOUGH. I AM HAVING AN INTEGRAL PROBLEM AND WILL HAVE TO COME CHAT.
MR. F: OK
VH: COOL
M.R.F: HOW WAS THE LAB OVERALL?
VH: IT WAS A LOT OF WORK.
M.R F: YES, L-6 ALWAYS SEEMS TO GIVE PEOPLE PROBLEMS.
V.H: REALLY?
MR F: YEAH. THEY SAY THE WORK IS REALLY HARD.
V.H: BUT, IF EVERYONE GOES THE SAME DISTANCE TO FINISH THE LAB, SHOULDN'T THE WORK BE THE SAME.
MR. F: YES, BUT ONLY IF THEY ALL PUT THE SAME FORCE INTO THE LAB.
V.H: I ALSO HEAR IT HAS TO DO WITH THE ANGLE YOU TAKE ON THE LAB.
MR. F: THATS TRUE TOO.
VH: WOW! THE WAYS YOU CAN STRETCH PHYSICS IN ORDER TO PRETEND THAT IT APPLIES TO STUFF WE NEED TO HAVE QUANTITIES FOR.
MR. F: WERE YOU UP LATE? YOU'RE RAMBLING.
VH: YES.
MR. F: I SEE.
VH: DO YOU KNOW HOW MUCH WORK ITS GOING TO TAKE TO RAISE MYSELF UP 1 METER IN ORDER TO GET OUT OF BED TOMORDW MORNING CONSIDERING THAT THE ONLY FORCES ACTING ON ME ARE IN THE -Y DIRECTION. IS THIS ACTUALLY GOING TO BE POSSIBLE?
MR. F: HMM ... LETS SEE.
V.H: NEVER MIND.
MR. F: OK
V.H.: HAVE YOU EVER TRIED TO LIFT A 2000 POUND CAR USING A DEAD LIFT, INCLINE AND DOUBLE ATWOOD MACHINE?
MR. F: NOPE.
VH: JUST CHECKING.
MR. F: CAN I ASK YOU A FEW QUESTIONS?
VH: SHOOT...,
MR. F: WHATS YOUR NAME?
VH: VANESSA HERALD
MR. F: WHO WERE YOUR PARTNERS?
VH: GOLI HAGHIGHIAN
ALISA KIM
MR. F: WHATS THE DATE?
VH: NOVEMBER 4, 1997
MR. F: WHO'D YOU GET HELP FROM
VH: YOU. DON'T YOU REMEMBER?

Work Lab


WORK
cos 60° = ?
F=ma
@$#*
a = dv/dt
what's a normal force?
E=mc²
TEST NEXT PERIOD
displacement vs. distance
Lab due
W = F · d
101 FORMULAS
GREAT PHYSICISTS
SOLUTIONS
MORE FUN WITH PHYSICS
LABS
FUN WITH PHYSICS
HOW TO SURVIVE SCHOOL
Sujean Kim
LAB PARTNERS:
Kathy Fong
Andrea Nasser
November 6, 1986

Late: ____

THE WHOLE CLASS
but
mostly me,

does
Conservation of Energy

L-12

" Everybody come and play
throw every last care away!
Let's do energy today!!! "

Help From:
Anna Hackel

Name: Jeilani Rhone-Collins
Partners: THE WHOLE CLASS!
Date: 11/7/17
Period: A

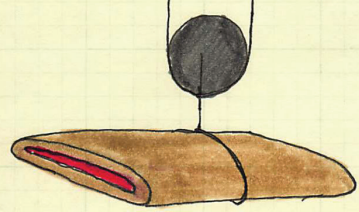
Newton's Second Law Lab

AD FISSICS
Thursdy Lab
(E Period)

Late: 0 DAYS!

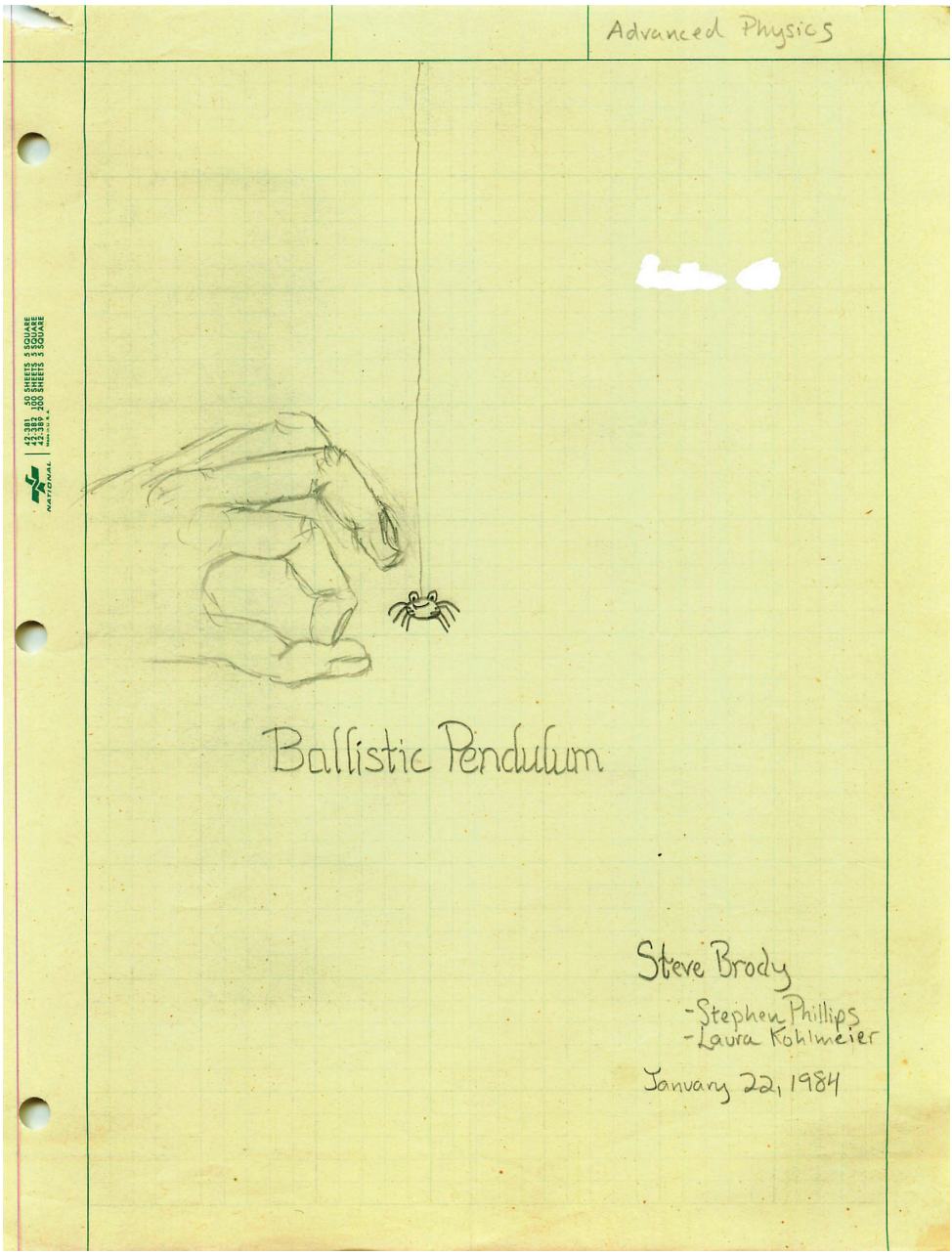
The dorkiest lab cover ever:

Newton's 2nd Law (F=ma)

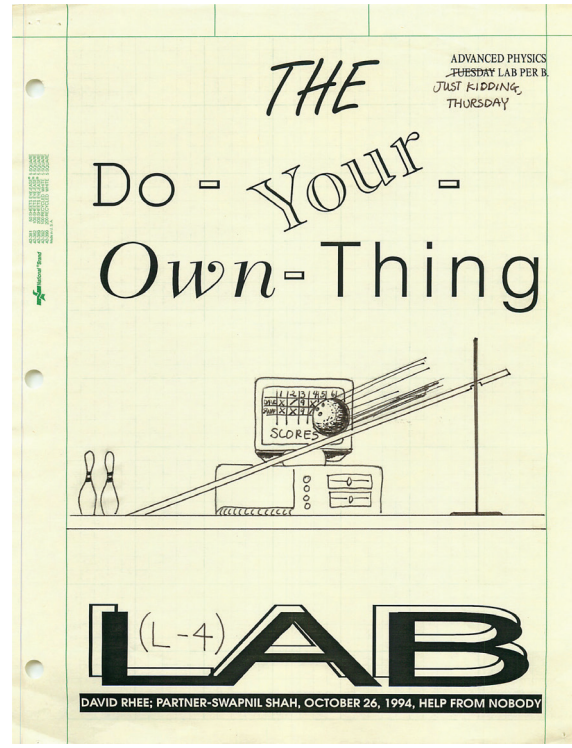


"It's not a cookie mother; it's fruit and cake."

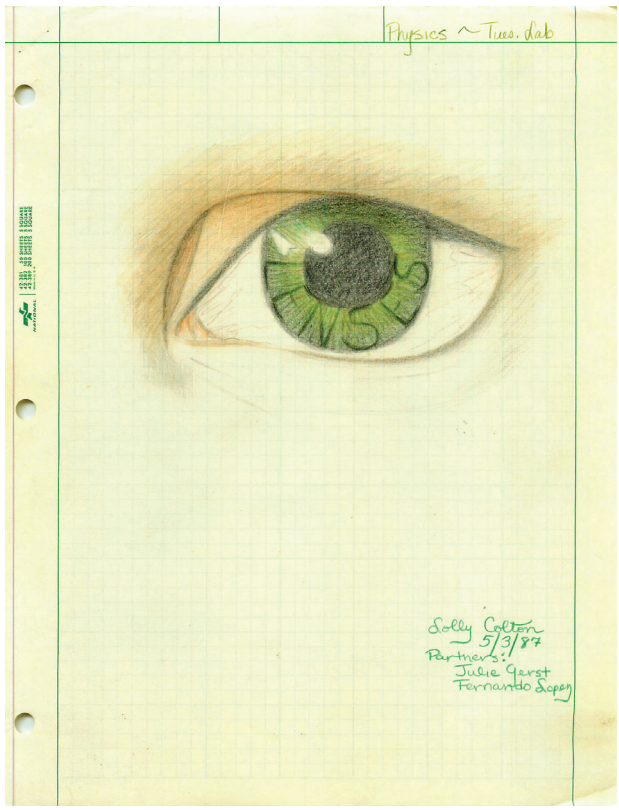
Mary Abdo
partner: Syd Schaub
Oct 13, 1997
Help from: David Abdo
Jon Wirjo, Syd Schaub

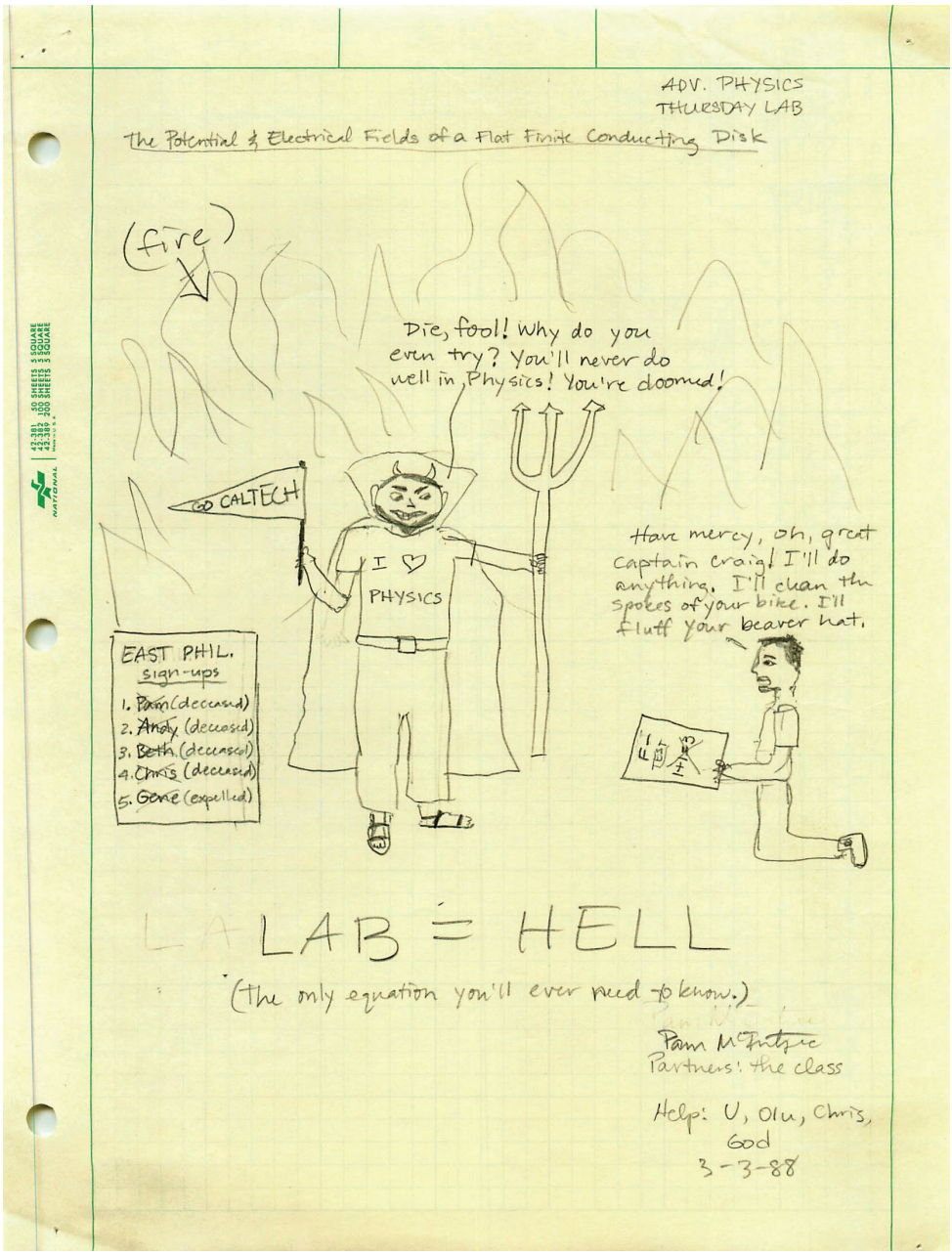

Advanced Physics
Ballistic Pendulum
Steve Brody
-Stephen Phillips
-Laura Kohlmeier
January 22, 1984

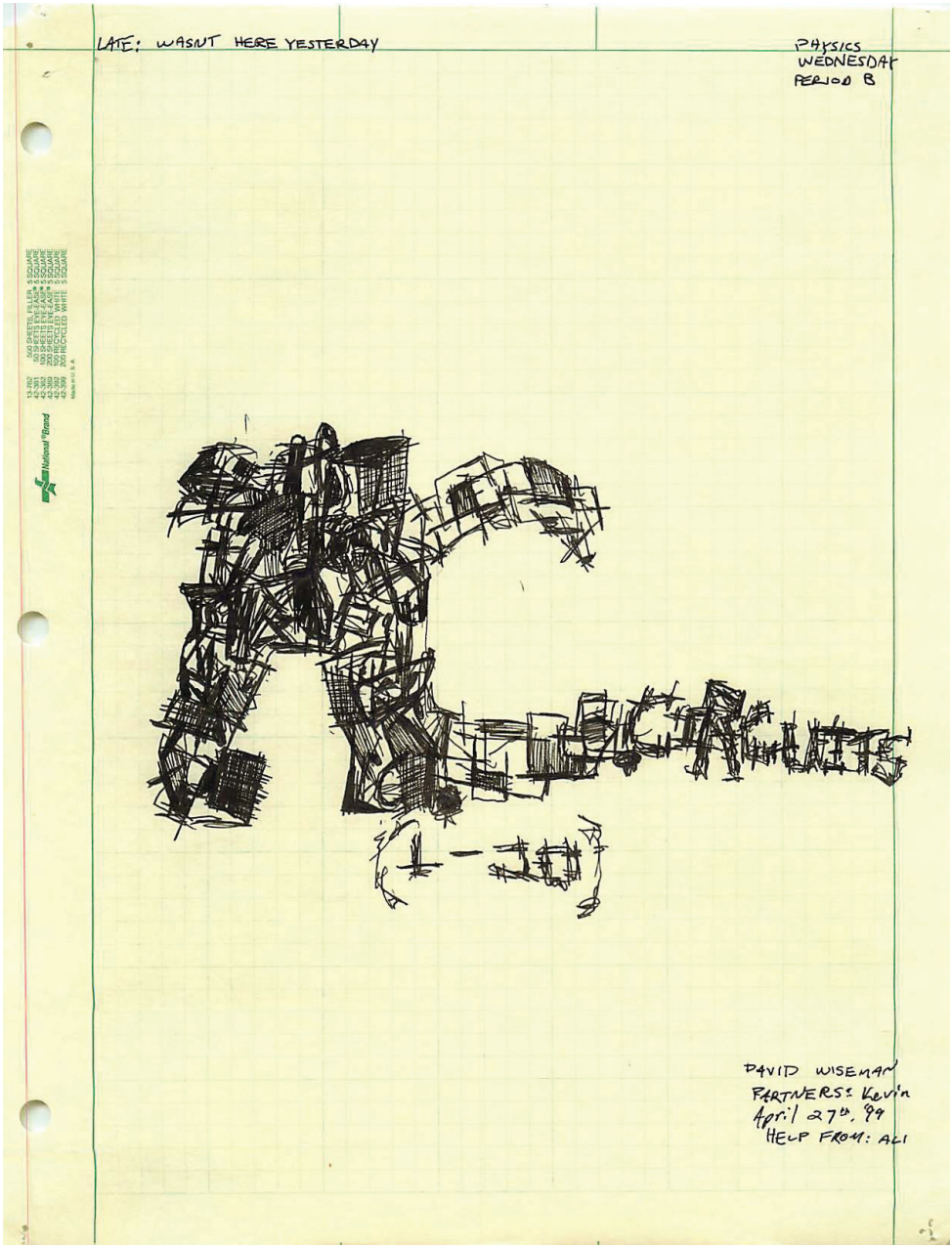
Acceleration Lab

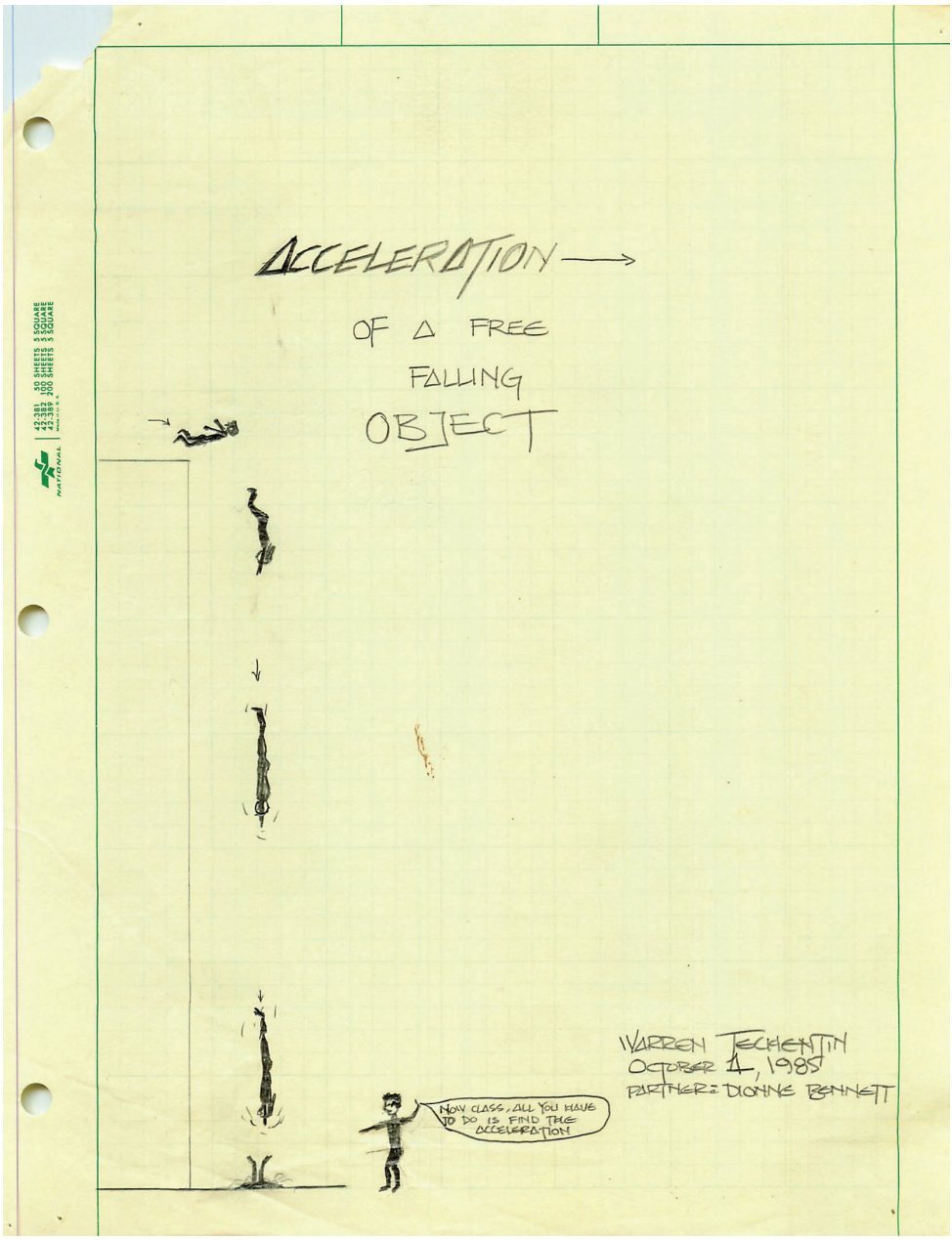


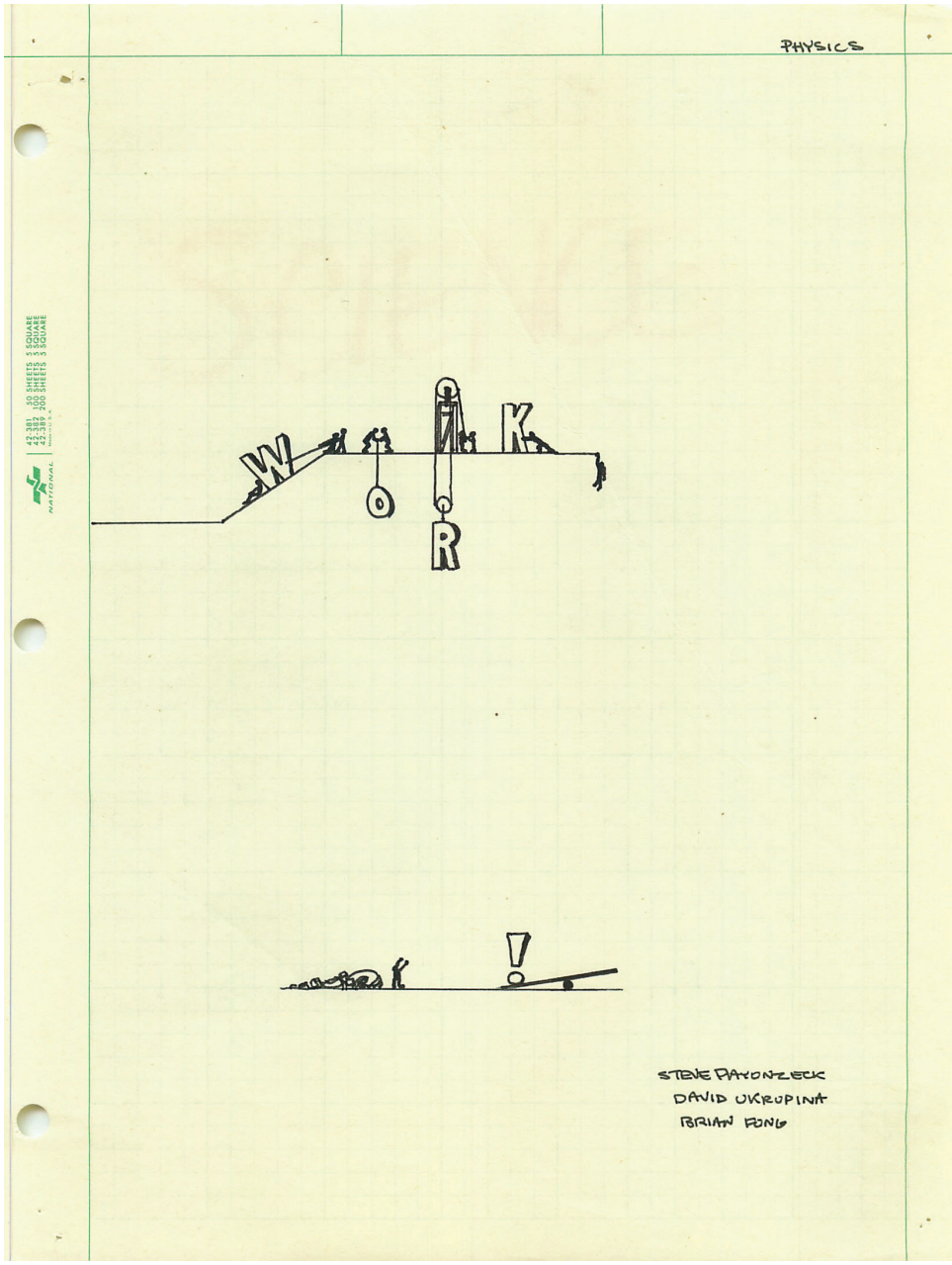
Lens Lab

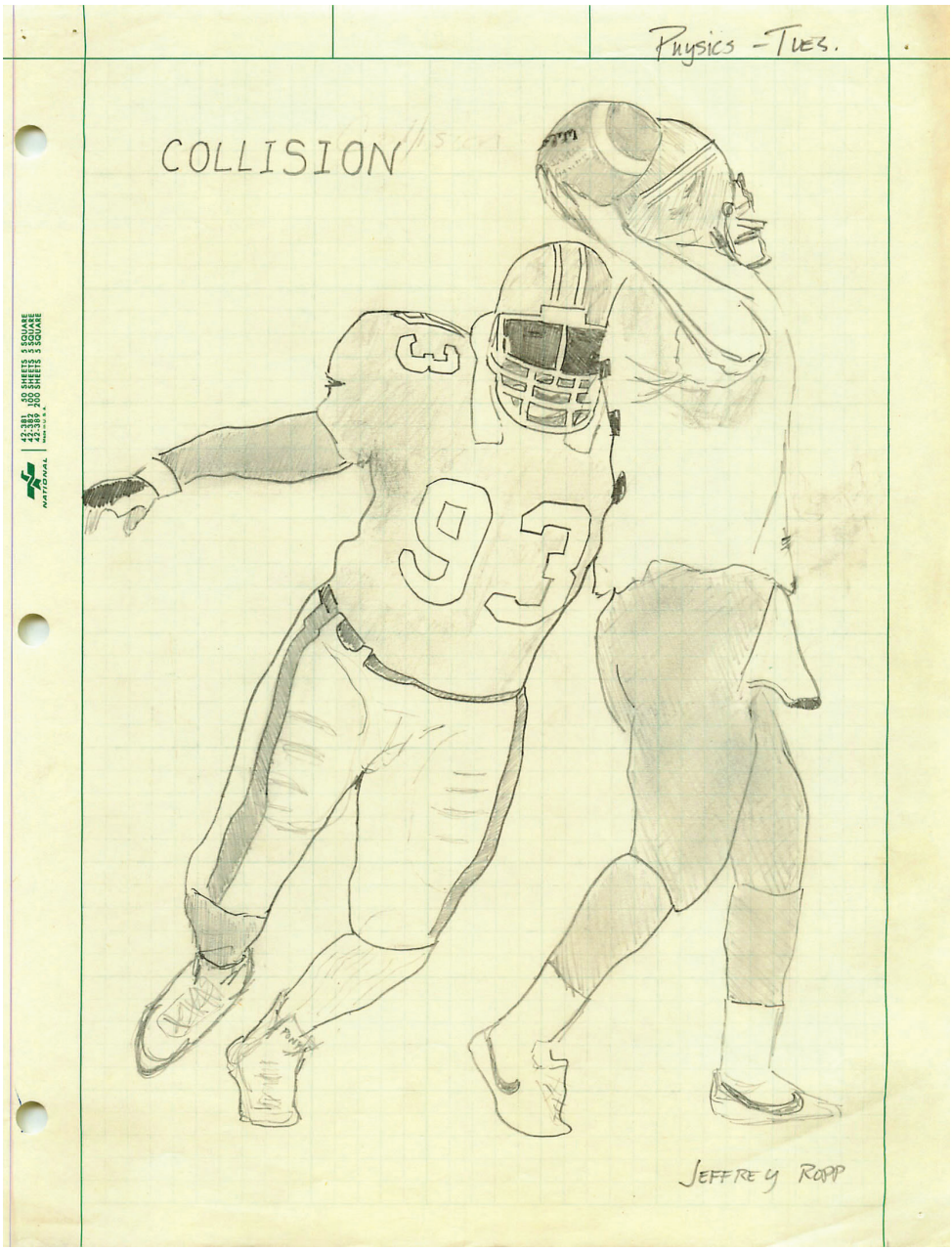



ADV. PHYSICS
THURSDAY LAB
The Potential & Electrical Fields of a Flat Finite Conducting Disk
(fire)
Die, fool! Why do you even try? You'll never do well in Physics! You're doomed!
CALTECH
I ♡ PHYSICS
Have mercy, oh, great captain Craig! I'll do anything. I'll clean the spokes of your bike. I'll fluff your beaver hat.
EAST PHIL. sign-ups
1. Pam (deceased)
2. Andy (deceased)
3. Beth (deceased)
4. Chris (deceased)
5. Gene (expelled)
LA LAB = HELL
(The only equation you'll ever need to know.)
Pam McIntyre
Partners: the class
Help: U, Olu, Chris, God
3-3-88

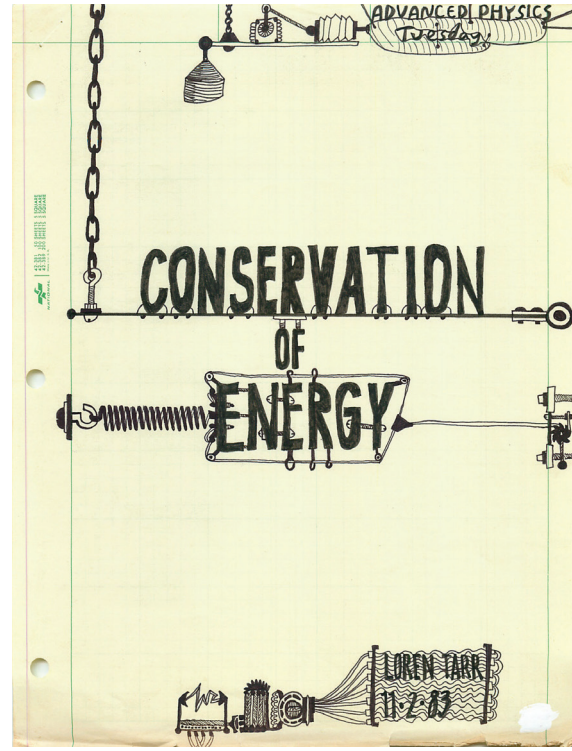

LATE: WASNT HERE YESTERDAY
PHYSICS
WEDNESDAY
PERIOD B
DAVID WISEMAN
PARTNERS: Kevin
April 27th, 99
HELP FROM: ALI

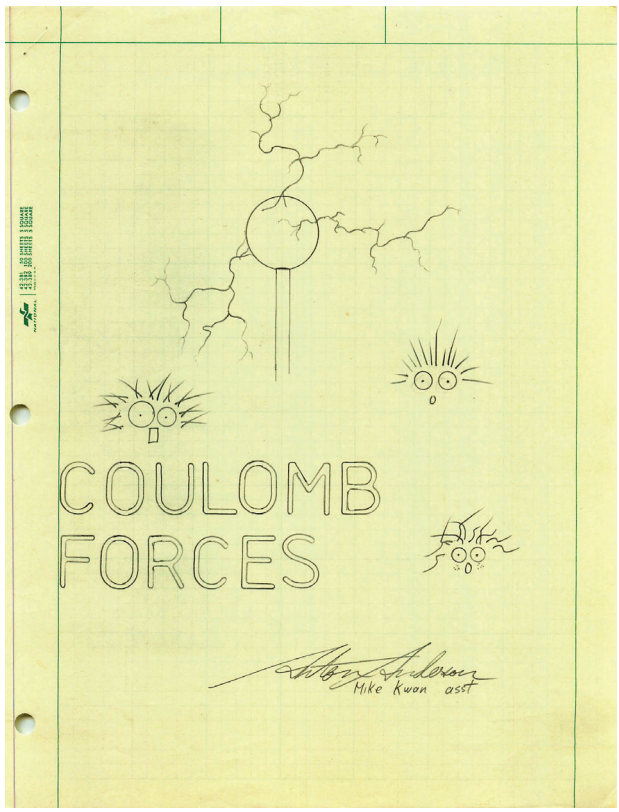

ACCELERATION →
OF A FREE
FALLING
OBJECT
NOW CLASS, ALL YOU HAVE TO DO IS FIND THE ACCELERATION
WARREN TECHENTIN
OCTOBER 1, 1985
PARTNER: DIONNE BENNETT


PHYSICS
W
O
R
K
!
STEVE RAYONZECK
DAVID UKROPINA
BRIAN FONG

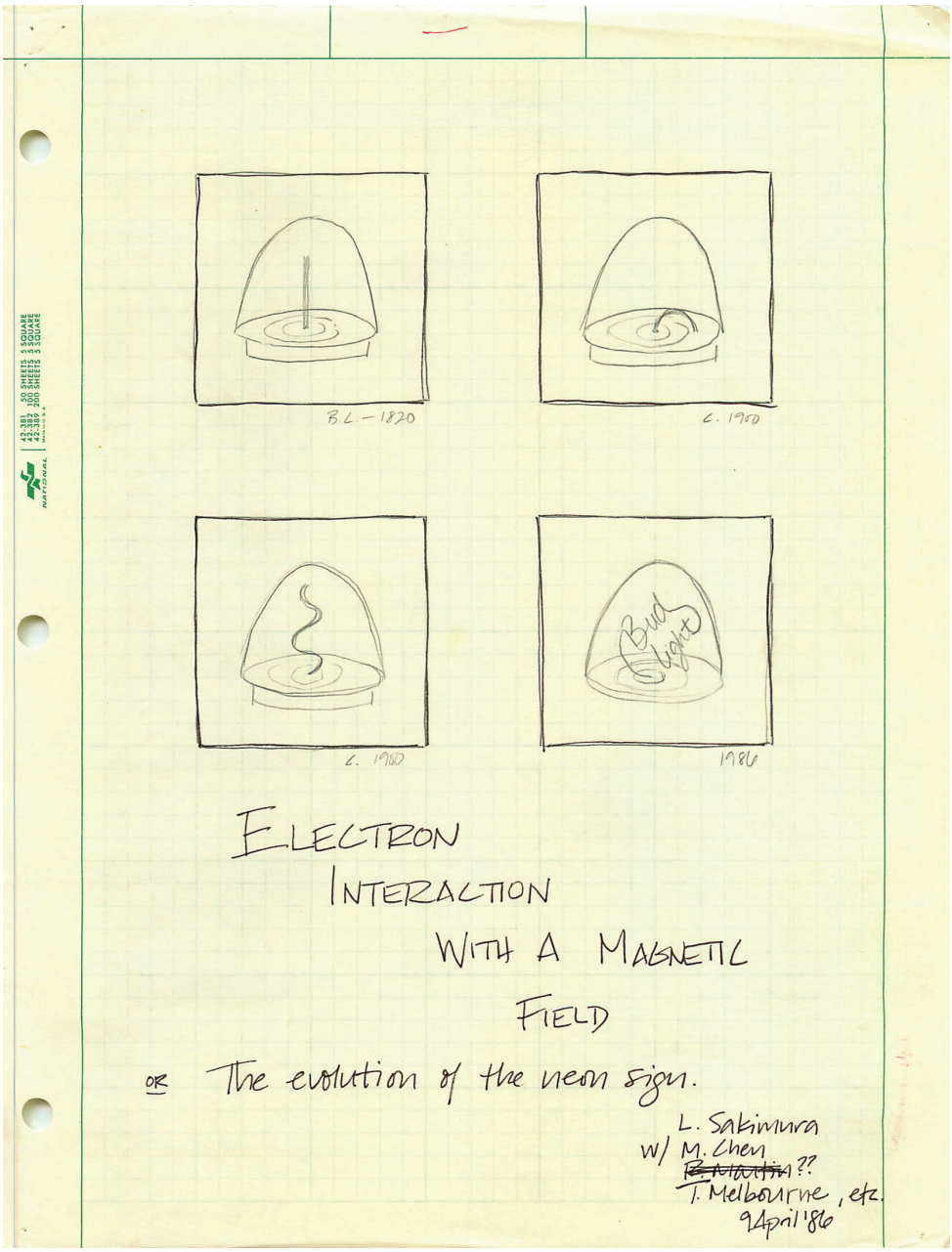

Physics - Tues.
COLLISION
93
JEFFREY RAPP

Conservation of Energy Lab





Coulomb's Law Lab



ELECTRON INTERACTION WITH A MAGNETIC FIELD

OR The evolution of the neon sign.

L. Sakimura
w/ M. Chen
~~[illegible]~~ ??
T. Melbourne, etc.
9 April '86

Newton's Second Law lab

Physics
-Tuesday Lab-
(Period E)

DAYS LATE - 0 DAYS

Lab-a-lot

(sung to the tune of "Camelot")

A law was made a distant moon ago here--
They're Newton's First through Third forget-them-not!
And there's no legal limit to the hell here--
In Lab-a-lot.

You know Autumn marks the start of our "lab-or"--
And ends up on the twelfth of June, thank God.
By order we must wait for Mr. Fletcher--
To say, "Get lost!"

Lab-a-lot!

Lab-a-lot!

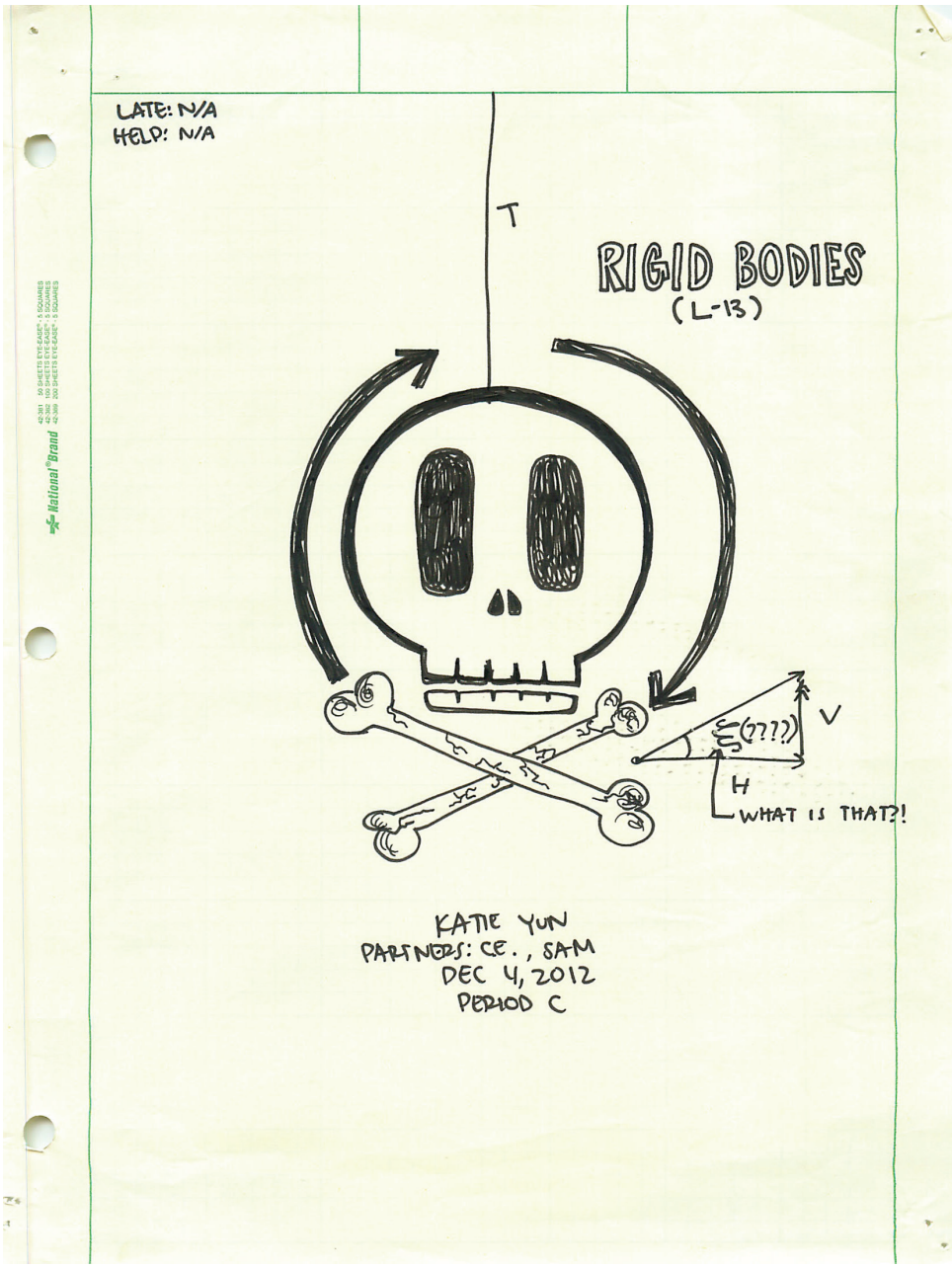
I know it sounds a bit bizarre,
But in Lab-a-lot,
Lab-a-lot,
That's how conditions are.

You know that lab is due by class tomorrow.
By eight o'clock p.m. the night before,
You're ready to persue,
That rabbit without a clue,

You'd rather be drowning in glue than
Here in, Lab-a-lot!

(L-5)

⇒ KARL VON TIEHL
PARTNER: Philip Schneider
Oct. 31, 1995
Help From: No One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KATIE YUN
PARTNERS: CE., SAM
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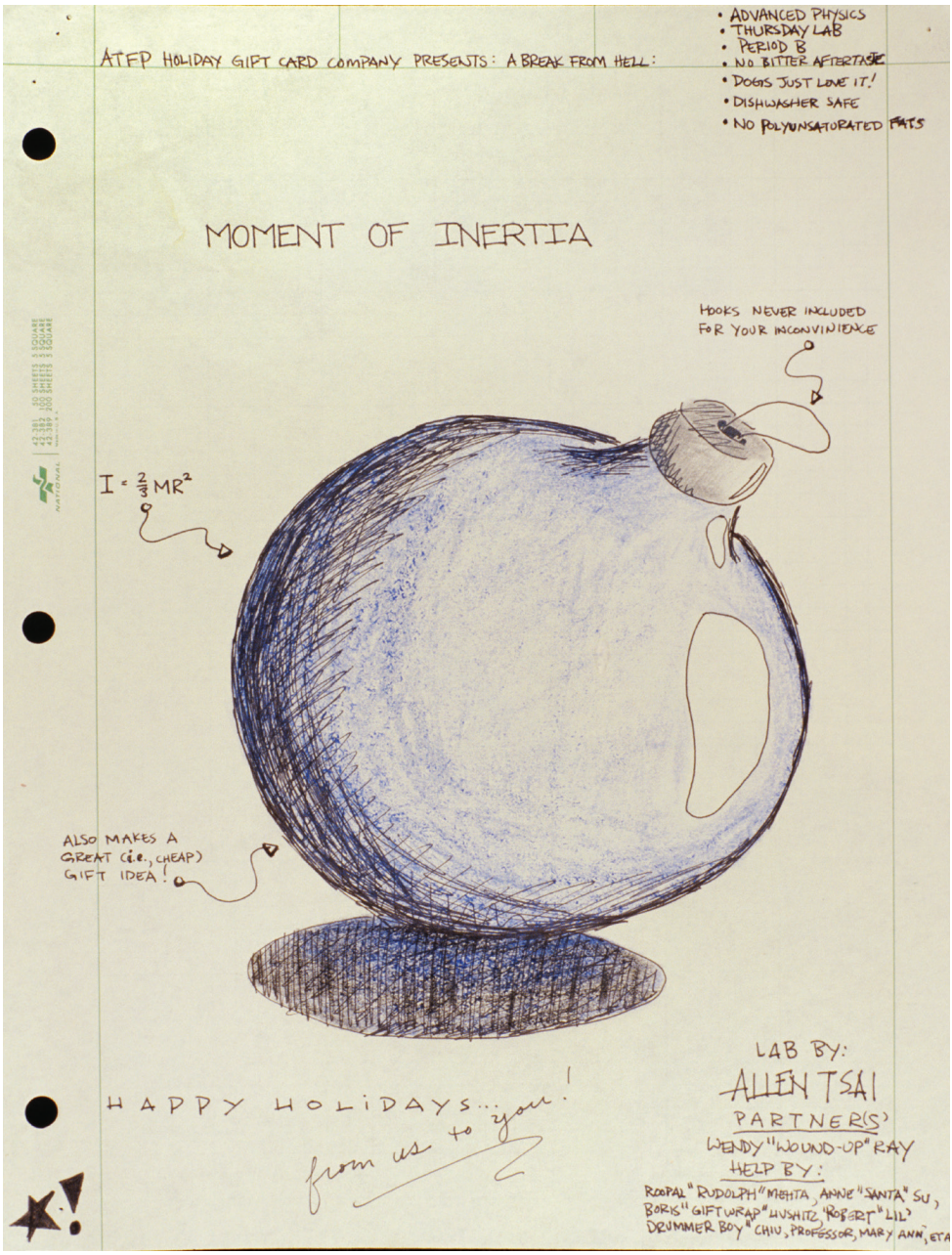
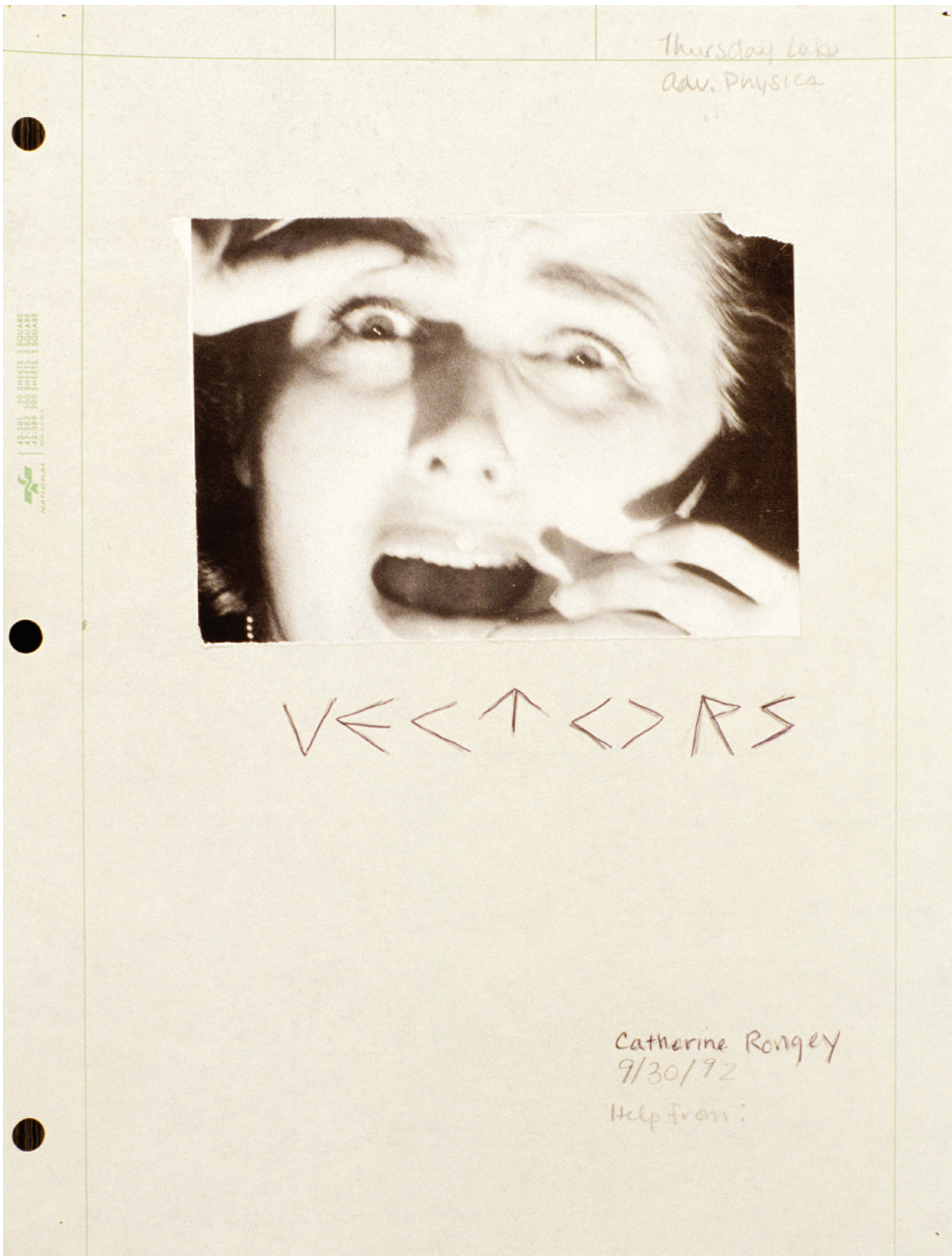
PERIOD C

Moment of Inertia lab




Thursday Labs
Adv. Physics
VECTORS
Catherine Rongey
9/30/92
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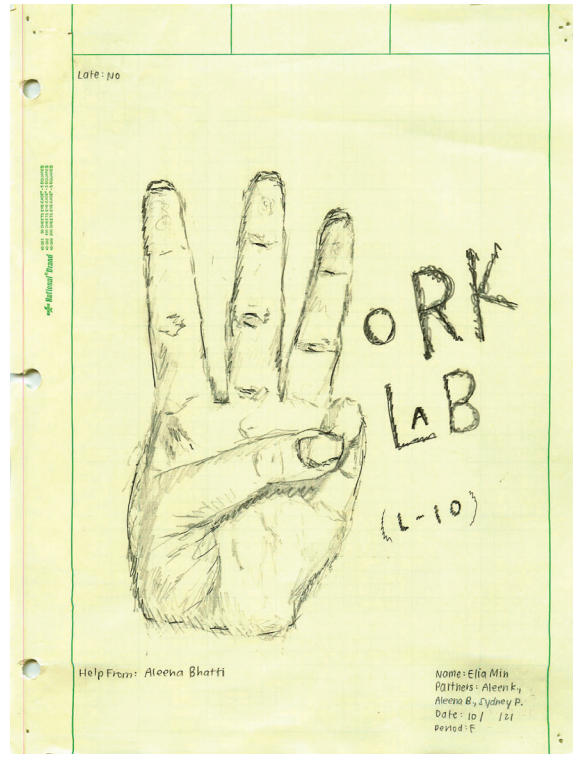
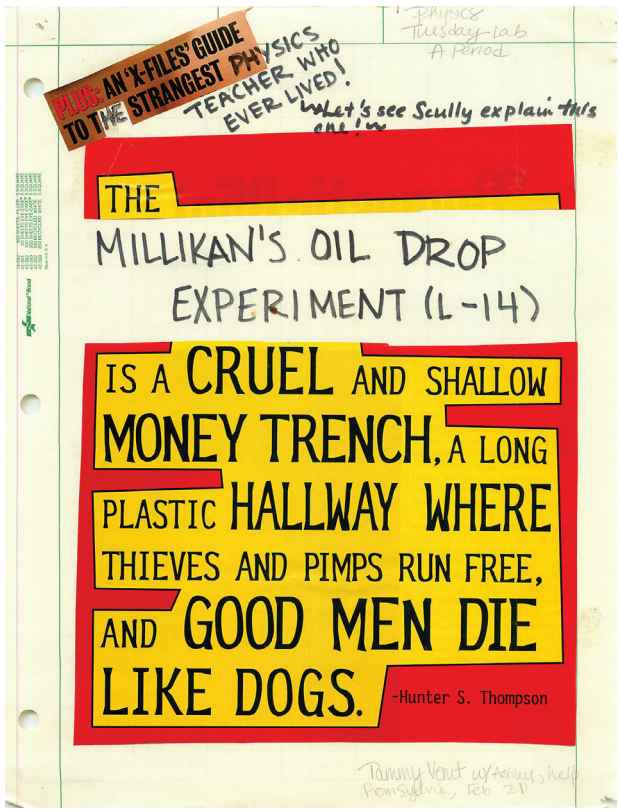
Work Lab





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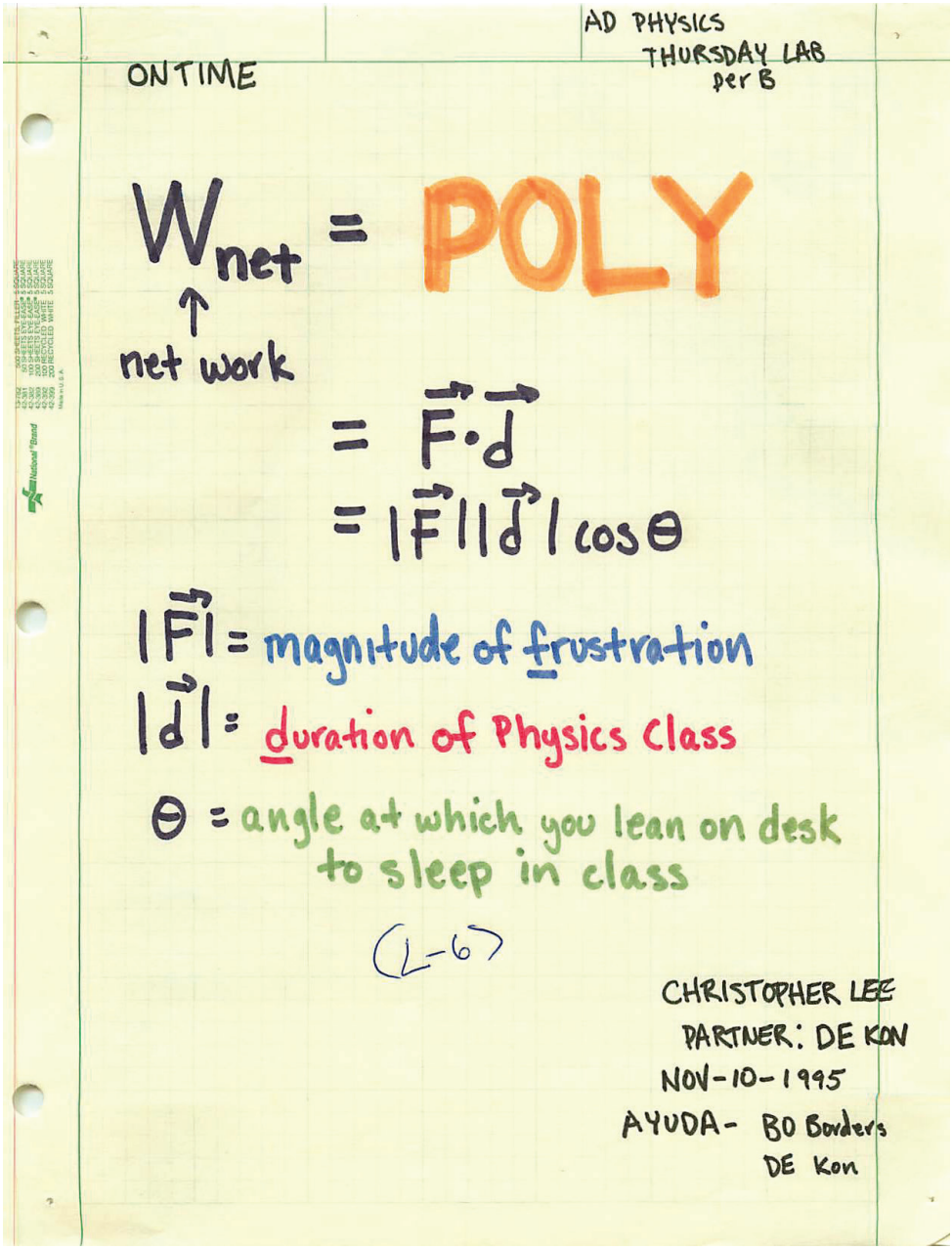
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PARTNER: DE KON
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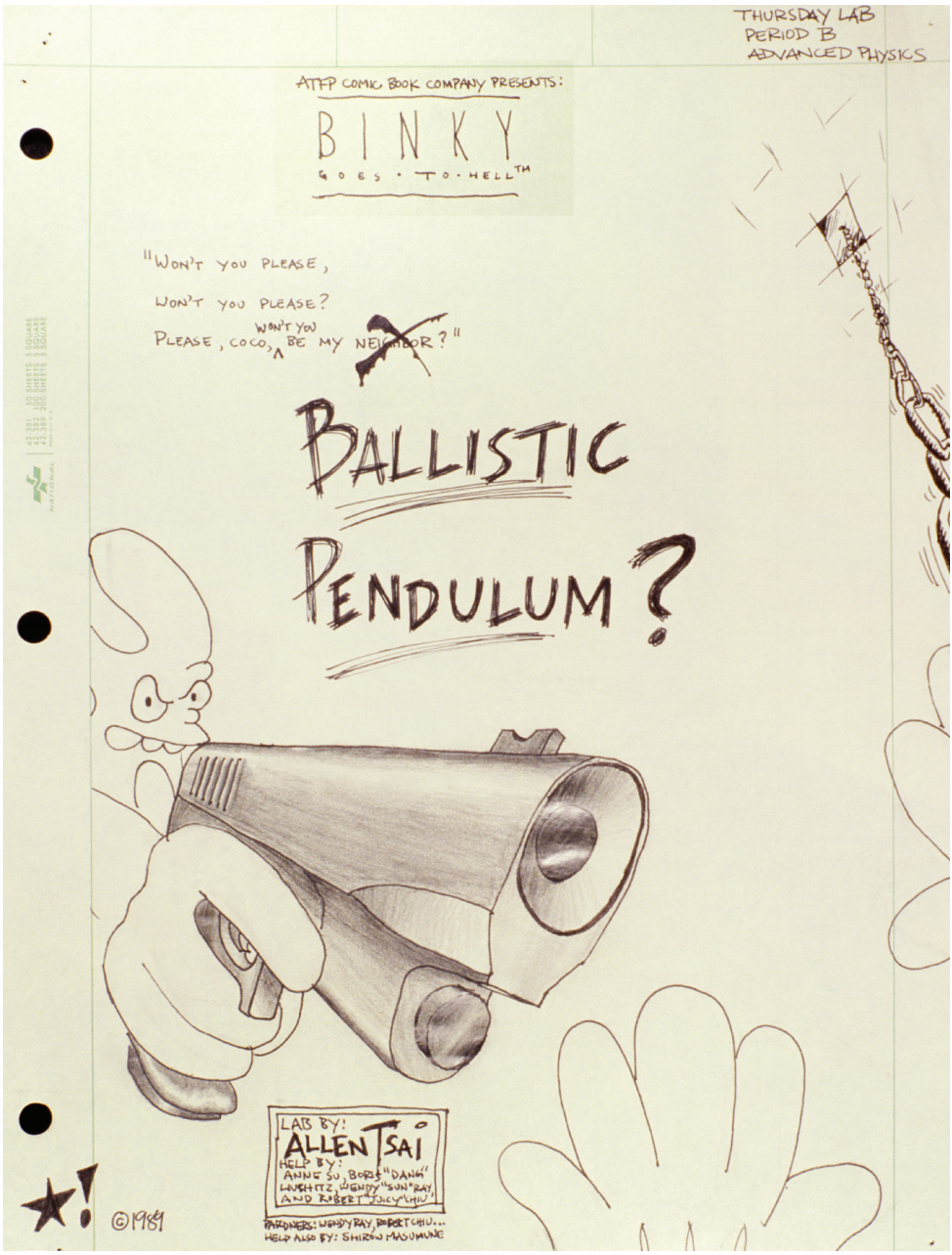
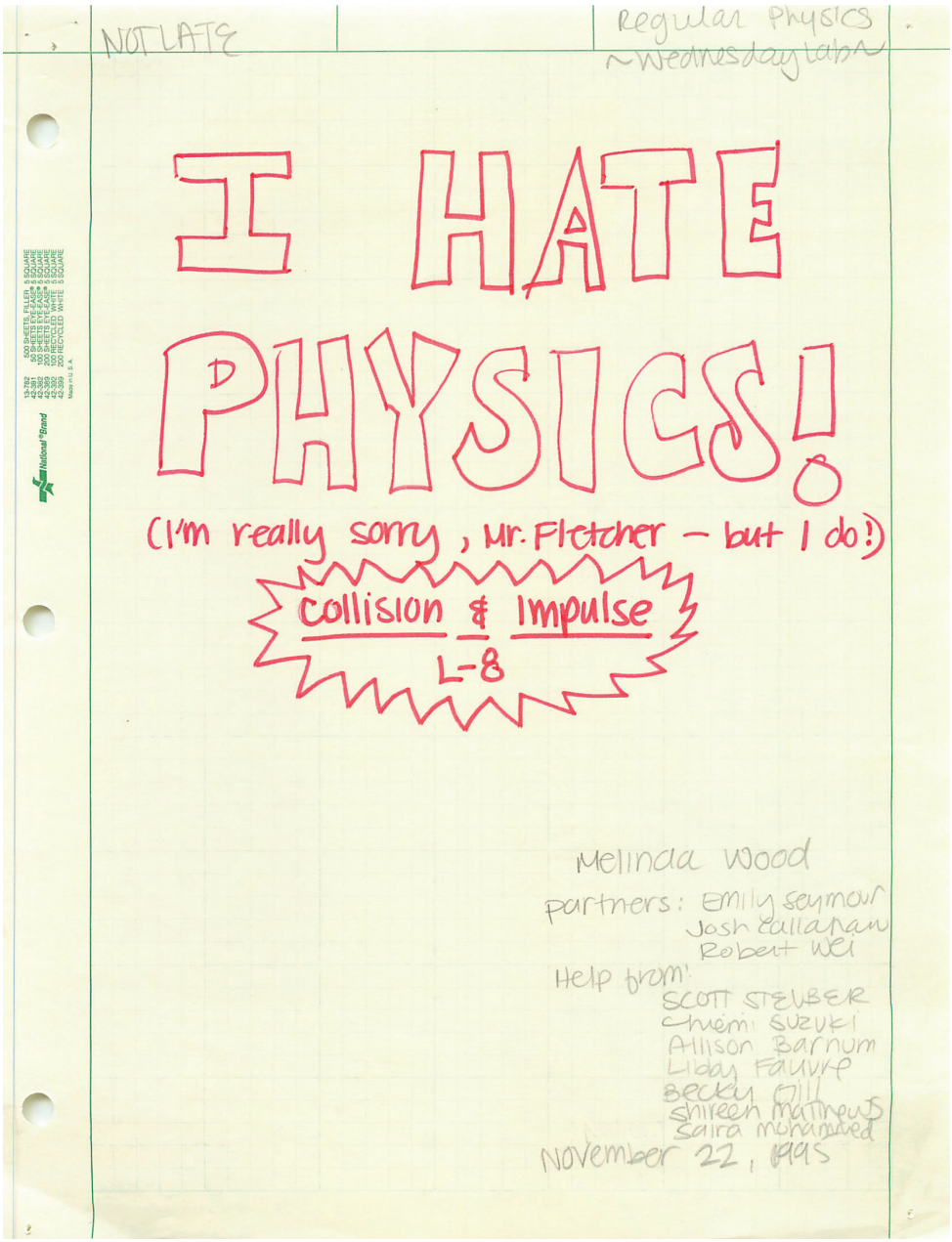
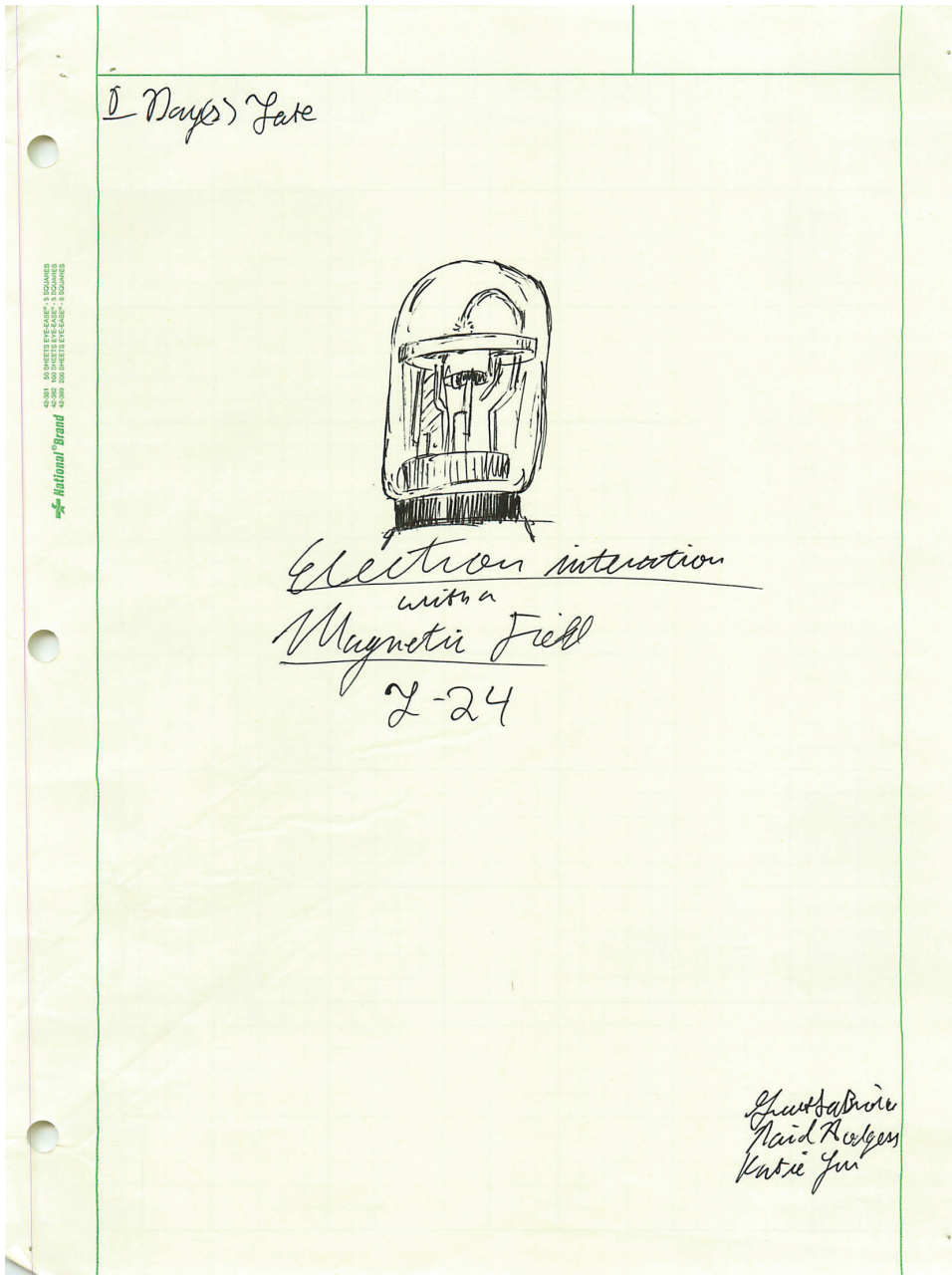
Ballistic Pendulum lab



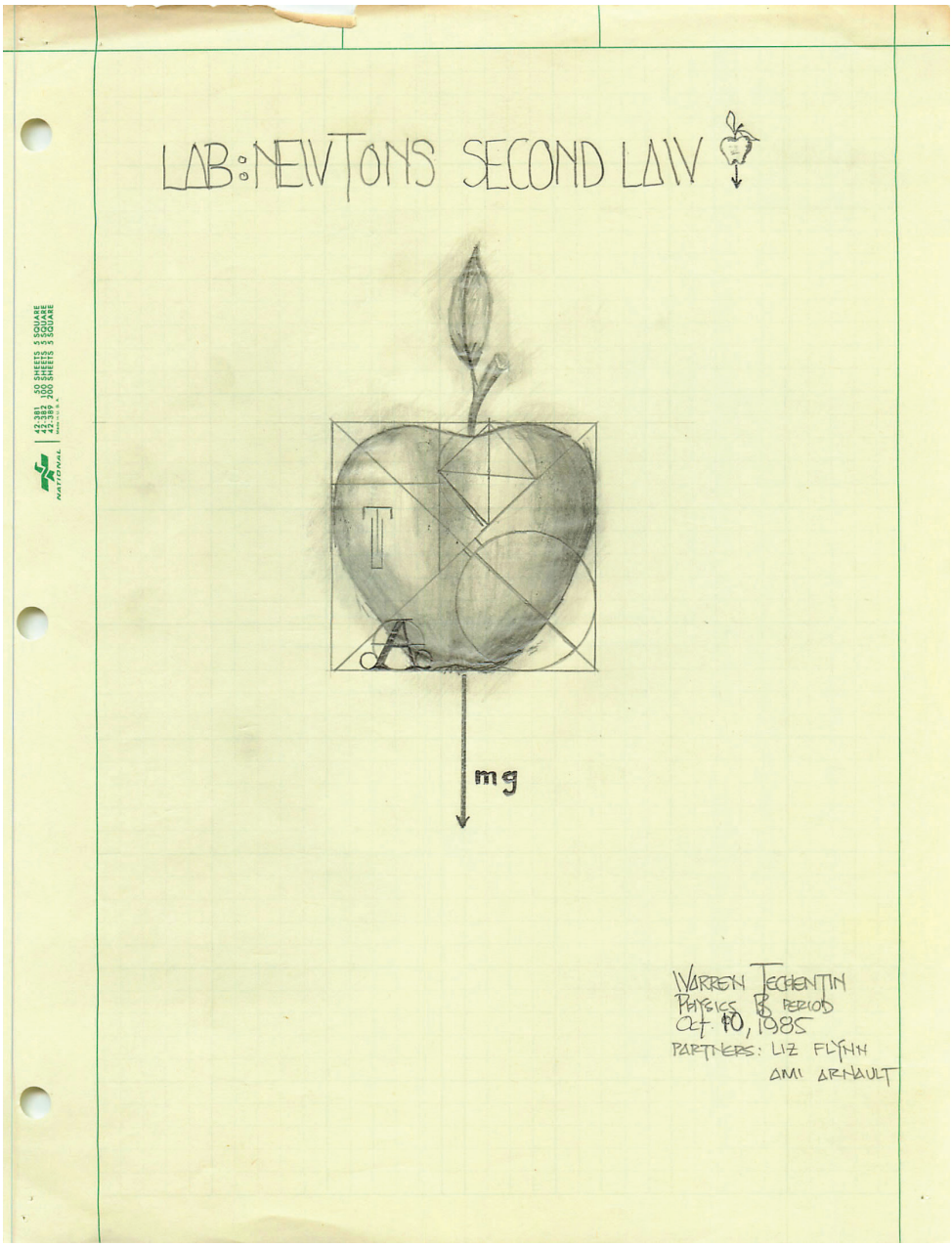
Collision and Impulse lab



Electron Interation with B-flds lab



Newton' Second Law lab



Chapter 44

So Why Did I Leave It?

[This is not a must-read chapter, but if you have the time, it's here.) In 2017, I taught one of the AP Physics sections at Poly, but between around 2004 to 2012, I was *persona non grata* when it came to that program. In fact, I would occasionally run into alums who'd had me during my first twenty-five or so years at Poly who'd say, "I heard you retired from teaching the AP course. Why was that?" Rarely did I taken the time to explain. For those who are still curious, now's the time.]

In the last several chapters, you've been treated to some of the lab covers I've had the pleasure of accumulating over the years. Clearly, I've been blessed with talented students who have been, if not always completely *into* my classes, at the very least willing to joust with me *over* the classes. So why, fourteen or so years ago (as of the writing of this chapter), did I suddenly stop teaching the AP curriculum and ended up spending my Poly time teaching the Honors Physics class.[1]

To answer that, you need to understand a couple of things about me and my relationship with Poly students.

To begin with, as I said a few chapters ago, there were long periods during my time at Poly, literally tens of years, when my rapport with my students was so good that I would end a school year with the thought, "Well, I can die happy now 'cause I can't imagine having another year better than the one I just had." Then I'd have a pleasant summer and start the next year, and I'd get to know the kids in that next class, and I'll be damned if it wouldn't happen all over again. Year after year after year I would have whole classes of students who were "the best ever." The consequence of all of this was that I always felt very attached to my students in a paternal sense. I really did have a protective edge to my dealing with both them and the school.

This tendency to protect has always been with me. I remember being

[1] I once had a very nice Honors student ask me that question. My brief answer was that it wasn't exactly my decision, and that it was political. Her response surprised me. She said, "Well, whatever it was, it wasn't all bad because it meant that we got to have you instead." It was a very sweet sentiment, not something I was expecting but something I very much appreciated.

in *kindergarten* and, instead of sitting on the rug like a normal kid with the rest of the tots, I would sit at the rear halfway between the rug and the door. Why? Because in my little, five-year old mind, I was standing guard, protecting the class from intruders (and, I might add, it had nothing to do with anything I had seen on TV—it was just me being me).

In other words, even though my relationship with the Brothers probably heightened that tendency, it would have been there no matter what. My sense of duty was constantly motivating me to do things on behalf of others (though I'm not saying I never did anything that was self-serving, it is just that this other thing was additionally often in play).

This is not to suggest that my efforts were always appreciated, understood or even wanted.[2] For instance, in the late 2000's, it dawned on me that one of the more beneficial skills my students might take to college (and beyond in life) was the ability to *think on their feet*. The problem was, I wasn't doing anything to help them practice doing that. My solution was to institute a classroom approach that forced my Honors Physics kids to take more responsibility for their own education. Part of this included, usually right at the beginning of a new chapter, giving a homework problem over material that hadn't yet been covered in class. The idea, at least in my head, was that they would be forced to go rummaging around in their book until they found something that would allow them to solve the problems. It wasn't as big a deal as you might think as the relevant equations needed were always found on the first page of the new chapter, but the idea was to make them take a little responsibility, do a little research and use the fruits of their labor to solve the problem (and if they found themselves completely lost, they always had the solutions to all their homework problems in hand, so it wasn't as though I had completely cut them loose).

Given the response, you would have thought I was demanding that they use the toilet without the luxury of toilet paper (gross, but not too far off). The students were incensed. They were so used to being spoon fed, by having teachers explain a topic, show them how to do some mathematical process, then have them go home and do a few problems of the same kind to practice what they had been shown, that the idea of expending their own personal, intellectual energy to figure something out on their own was beyond the pale. I got Course Evaluation comments like, "Mr. Fletcher hasn't helped me at all this year. As far as I'm concerned, everything I've

[2] As I think I pointed out earlier, if you want to REALLY confuse someone, especially someone you are dating, approach your experience with them in a completely selfless way. It is not something people are used to running into, so it has the potential of really throwing them.

learned in this class I've had to figure out on my own."

That, of course, was poppycock. Once we got into a topic, I would spend every day in class moving them toward an understanding of the physics. And by test time, they were (if they had been working) fully competent to deal with whatever I threw at them. They just weren't used to a teacher who, early on in the process, said, "Here's a problem. Use your head. Figure it out." [3]

Sadly, I was not always popular with my students, even when I was doing things that would have been good for them in the long run.

On a different level, you would think that the actions of a school would always be in the best interest of its students. That was generally the case at Poly. There were rare occasions, though, when lines got blurred and what was deemed *best for the school* or *best for the teachers* or *best for the administration* or *best for a particular department* did not necessarily align with what was *best for the kids*. When that kind of thing happened, I would inevitably do my best for the students.

You've already seen an example of the kind of situation I'm talking about (one, I might add, that I couldn't do anything about) when Upper School administrators decided to not allow the Science Department to make the year-long Freshman program into a split ticket affair with the less able students taking Biology and the more advanced students taking a pre-Chemistry class to prepare for AP Chemistry in the sophomore year. As reasonable as this would have been from a *best for the students'* perspective, it wasn't allowed because it would open the door to *student selection disputes* and the possible introduction into the fray of pushy parents. The administration didn't want to hassle with either of those prospects, so they simply nixed the option (at least, that's how I read it).

Two other examples come to mind:

When I arrived at Poly, students took cumulative exams at the end of the first and second semester of each year. The schedule was set up for one, 3-hour exam per day. That meant students would have a full 21-hours to get ready for their next exam.

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[3] For the record, I finally decided that this approach was doing more harm than good (even though I still think taking responsibility for one's education is good for students), so I took a different approach in the 2014-15 school year. My course evaluations were considerably better that year . . . Yippee.

Also, I learned something very important and useful from the experience. For students to accept what you are doing, they need to understand *the why* of the experience. If I had done a better job of communicating what I was trying to do for them, they still probably wouldn't have liked it, but there is a good chance they would have been more accepting.

Put a little differently, a student would take a 3-hour test covering an entire semester's worth of work on, say, Tuesday morning, go home, have lunch, relax a bit, then spend six or seven hours reminding themselves of all they'd learned over the semester for the next day's subject. They would hopefully go to bed early to get a good night's sleep, then be up and ready to go by 8 AM the next morning. They were pushed academically, but they were also given the luxury of time to accommodate the push.

Thinking that more *class time* would be better than less, there was at one point agitation amongst both the teachers and the administration for more teaching days. To that end, a motion was presented to the faculty one year to replace the semester exam schedule with one in which the students would take *two tests per day*. The talking point was that the students would have more tests per day, but each test would only be *2-hours long* (and with fewer days taken up with tests, more class days would be made available).

When debated in one of our faculty meetings, the tide seemed to be moving in the direction of passing the measure until I, being the only adult in the room who seemed to be looking at the situation from the perspective of a student, spoke up. I pointed out that the amount of material kids would have to engulf to be ready for a semester exam was the amount of material *covered during the entire semester,* and that it didn't matter whether the exam was 3-hours or 2-hours or 1-hour, the required *preparation time* would be the same. Suggesting that there would be some kind of equitable trade-off in shortening the test length so we could have more *tests per day*, given that prep time constraint, was ridiculous. I ended with the observation that anyone who believed we would be doing our kids any favors with the move was deluding him or herself.

Fortunately, the measure didn't pass. I believe it might have, though, if I hadn't stood up on behalf of the kids.[4]

Another example happened years ago when the U.S. History course was something that could be taken either in the junior or senior year. The

[4] Interesting note: If you will remember back several chapters, I mentioned that in 2013 and 2014, the Washington Post ranked Poly in the top ten high schools in the nation for rigor, and that since then our Administration has moved the school in a way that may have diminished that estimation. As of 2018, one of those moves has been to institute *two-a-day* exams during our finals periods (my victory was apparently short lived). You might think that this would *increase* the rigor. The rub is that linked to that move was an alteration of what an accepted exam looks like. In fact, we don't call them exams anymore, they are called *assessments*, and the new trend is for *alternate* assessments which are often *experiential* and not so academic in nature. It is all very New Age, and old-school rigor appears to be waning. It may or may not be a good move, and I may or may not say more later.

History Department didn't like the arrangement for a number of reasons (the seniors had three weeks less class time during the second semester of their senior year due to AP tests and senior projects, and it wasn't uncommon at the time for some seniors to go into a senior slump during the second semester thereby making any class they might be in less than ideal in an academic sense). As such, the department wanted to make the class into an all-junior affair by excluding the possibility of seniors taking the class at all.

Though this would seem reasonable on the surface, it had the potential of sucking for at least some of the students. At the time, four-fifths of our students took AP Biology. That was a class that had an enormous amount of reading in it (as did the U.S. History class) and had to be taken in the junior year due to prerequisites and the fact that students had to take physics as seniors (again, due to co-requisites).

Making a student who wasn't a spectacularly good reader take both AP Bio and U.S. History in the same year just didn't make sense. For the less able students, especially those that weren't great readers, the option to take U.S. History as a senior was needed.

I pointed this out to Mike Babcock, then school head. He agreed and the plan was scrapped. As you can imagine, the History folks weren't very happy with me. They got their way in the end, though. I didn't find out about this until a couple of years later, but the year after the formal request was denied, the change was made quietly. When I asked about it, Greg Feldmeth said it was because just about everyone in the year following the denial opted to take the class as a junior, so they just made the move institutionally. Given how quietly it was done, I suspect backroom politics were involved, but I'd done my best and could do no more.[5]

The point I'm trying to make here is that there have been times over the years when I have found myself in a position to speak up on behalf of my charges or for students I haven't personally known, even on issues that haven't directly affected me, and I have done so. In short, I have been very protective of Poly's urchins when the need has presented itself.

Having said that, this impetus to stand up for my students when there has been (or was about to be) a perceived injustice has not always served me well. Enter the *mandatory AP test policy* incident and my less than intelligent reaction to its passage . . .

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[5] Greg was and still is a good friend, but he was at the time particularly pissed at me for inserting myself into History Department business. As a monument to the persuasiveness of my argument, though, it should be pointed out that at that point he was not just any ordinary history teacher, he was also the Head of the Upper School.

Let me begin by starting *in the now* (this was written in 2015). As of right now, Richard White is the face of AP Physics at Polytechnic School. He has produced a spectacularly good C-level (Calculus oriented), AP Physics program that regularly produces students who earn very high scores on the AP Physics test, and he has instilled a desire in his students to do well on the test as a matter of pride. THIS IS EXCELLENT. It is what every school in the country hopes for from its AP teachers. If I had to lose my job as AP teacher to anyone, he is the man to whom I would want it to go.

As for yesteryear: Although Poly had a C-level, AP Physics class when I arrived, it was taught by a fellow who was hard of hearing and who had absolutely no control over his class. Consequently, his program was in tatters. This was perversely good for me in the sense that I had no problem with classroom control (I'd taught in LA City Schools as a sub for several years—I knew what I was doing) and it gave me the chance to create a course out of whole cloth.

From the get-go, I decided my course would include complete explanations of everything *I hadn't understood* when I was a student. For instance, the first time I ever saw a *dot product* and a *cross product* (these are mathematical operations), they were in an electrical engineering class at ASU and I had NO IDEA what the operations were about. Furthermore, I couldn't find *anyone* or *any book* that helped me understand at a conceptual, gut level, what the operations really did. (You have to remember, this was way before the Internet and the option to Google or YouTube something you wanted to research.) I didn't want that for my students. I wanted them to understand things from the ground up.

In summary, the class I designed for Poly's advanced-science seniors was not really meant to be a dedicated AP Physics class. It was meant to be better. It was a class designed to ensure that anyone who went on to take Calculus-driven physics in college *wouldn't* run into stuff they hadn't already seen and didn't already understand at least cursorily. What was nice was that a class like that just happened to be a very good AP physics course, too, but that was happenstance.

There was one downside to all of this. Because I would sometimes include problems in my daily lectures that had complications that the AP folks would never include on an AP test (but that could easily pop up in a college class), I never had time at the end of the year to review for the AP

test.[6] That meant that if students wanted to review at the end of the year, it was up to them to find time to do it on their own terms.

When I first arrived at Poly, a student could quite literally walk into an AP test on the day of the test WITH CHECK IN HAND and take the test. There was no formal, mandatory, preregistration for the tests. There was a straw count taken earlier in the year which gave the school a feel for how many tests to order, but the count wasn't binding and the school always ordered more than needed on the assumption that they would, for a fee, send the unused tests back.

Additionally, in the beginning of my stay at Poly, students weren't *required* to take the AP tests that went with the AP courses they were taking. As a consequence, the only students in my classes who took the respective AP Physics test were students who chose to. I never had a student take a test and NOT study for it beforehand, and I never had a student earn a score below a *3* with many earning *4's* and *5's* (a *5* being, as I pointed out earlier, the highest one could get).

In short, I covered everything my students needed to know during the year. All they needed to do to succeed on the test was to be willing to do a little year-end reviewing on their own.[7]

There were very few seniors in those days who applied *early decision* to college, but for those who did and were accepted, they had an advantage over their compatriots. Because they knew where they would be next school year, they could check to see if their university accepted AP scores for college credit. If it didn't, there was no reason to take the AP tests and

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[6] Reviewing for the test meant the difference between a mediocre student getting a 2 (which was a Fail) or a 3 (which was passing). I didn't really care what my student scores were because I didn't view the class as an AP course. It was instead a spectacularly good college preparatory class (besides, students who wanted to do well would study beforehand and *would* do well). I might add, when I first got to Poly, the school prided itself on its disinterest in test scores. Even though we regularly had students who scored well on AP and SAT tests, the school downplayed that information both in its publications and its communications with parents and prospective candidates. In other words, one of the reasons I was so cavalier about test scores was because the school seemed so disinterested. I don't blame them, but all of that changed as school administrators became more and more concerned with the school's brand. Part of my problem, aside from being stubbornly attached to *the way things had been*, was that I didn't really notice this new upturn in interest.

[7] Things changed somewhat when a cost-saving measure moved the administration to make preregistration mandatory. The seniors *still weren't required to take the test*, but if they thought they *might* take it, they were required to sign up and pay for the test in February.

they wouldn't preregister (this was after mandatory registration went into effect).

Those who weren't in that position fell into two groups. The first was a tiny group who knew they didn't understand the material very well, knew they would certainly flunk the test if they took it and, consequently, decided not to even try. They also wouldn't sign up in February.

The other group was naturally large, being comprised of everyone else, and pretty much all of them signed up.

By the time the test came, the students with tests waiting for them also fell into two bailiwicks. There were the students who wanted to take it—they traditionally studied and did well—and there were those who, for whatever reason, had decided they weren't interested but took the test anyway without studying beforehand. They rarely did well.[8]

During that period, in short, I started having scores of *1's* and *2's* along with my usual *3's, 4's* and *5's*.

The bottom line was that as we entered the early 2000's, most of my seniors were taking the Physics AP test even though a bunch of them every year really didn't want anything to do with it, didn't study for it beforehand and didn't do very well on it. Nevertheless, I still had it in my head that they had a choice, and I knew that at least some of them exercised that choice and opted out of that February pre-registration due to early-decision elimination, disinterest, inability or just plain old exhaustion.[9]

Everything changed during a faculty meeting sometime around the year 2000 when Alice Cotti, someone for whom I had an enormous amount of respect (she was a spectacularly good college counselor) and someone I counted as a friend, got up in a faculty meeting and said (loose quote), "I was at a conference of 32 of the best private schools from all across the country, and I was *terribly* embarrassed when someone asked how many of the schools require their AP students to take the AP tests at the end of the year. I was the ONLY ONE to NOT put up my hand. I was *SO* embarrassed. We are *SO* behind the time. If we want to be amongst the best in the nation, we *HAVE* to change our policy."

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[8] The two reasons given for not studying were most often quoted as: 1.) exhaustion, which is to say that senioritis had finally set in and the student just couldn't muster the effort required to get ready for the test, and/or; 2.) finding that the university of one's choice wouldn't accept AP tests for credit, so doing well or not doing well made no difference.

[9] A student could cancel the test even after they had registered. If they did, they would get a refund, minus a 15% "restocking fee." What was interesting was that the school did not publicize that option, so most students didn't realize that they had any choice other than taking the test once payment had been made. In fact, *I* didn't find out about that possibility until several years after-the-fact.

This came completely out of the blue. I'm sure Grace Hamilton, who was the Upper School Head at the time, knew what Alice was about to say, but there hadn't been an agenda provided for the meeting so nobody outside of the administration was ready for the blast.

Within five minutes of this very emotional plea, and with essentially no debate and no time provided for people to *think about the hidden consequences* of such a move, the faculty was asked to vote on changing the policy. Anyone taking an AP class, whether they be a senior or not, HAD to take the course's associated AP test at the end of the year, no matter what.

I couldn't put my finger on what I didn't like about this at the time, so I didn't say a thing. I was, though, the only teacher in the room who didn't vote *yes* on the motion. It wasn't until three hours later when, while in the shower (I take my showers at night before dinner, an amazingly useless and gratuitous bit of information inserted here for no good reason), all the things wrong with what we had just done came crashing down on me.

The very next day, I went into Grace's office and requested that we reopened the discussion. Her response was that the faculty had spoken, voting to uphold the change, and that the door was shut.

This irritated the hell out of me. I came away feeling that people in the administration had decided beforehand that they wanted the change and, having railroaded the faculty into endorsing the move, were now hiding behind that formality. It wasn't right, as far as I was concerned, at least with respect to the seniors.

Over the next several weeks, I continued to talk to Grace about this. My points were:

1.) The AP curriculum is designed to allow high school students the opportunity to take college level courses while in high school. It is definitely something our students are capable of doing and should be allowed to do.

2.) The AP folks generated the AP *test* to give high school students an avenue to get college credit for the AP courses they take in high school. That was the primary reason the AP tests were devised. (Their rationale has since changed, but that was their line in the beginning.)

3.) There are loads of universities that *do not accept* AP scores for credit.

4.) The AP test is not free, it costs money to take.

5.) By year's end, seniors know where they are going to college. That means they know if their university will accept any AP scores they have accumulated while at Poly. If their university *doesn't* accept AP scores, an AP test taken in the senior year has no practical use for those students. We

don't work for the College Board. We should NOT make our students pay good money to take a test that will do absolutely nothing for them. THIS ISN'T FAIR TO THE STUDENTS and it isn't fair to the parents who are footing the bill!

6.) Additionally: People claim an AP test is an inherent part of an AP class. It is not. The test scores for a senior cannot be used in determining the student's class grade. Hell's bells, the scores for seniors are not even *available* until after the student has *graduated*.

7.) We are constantly pushing our students to take chances. So a student takes a chance and takes AP Physics. He/she does horribly, just barely passing. Why are we making their lives even more miserable at the end of their stay at Poly by forcing them to jump through still one more hoop—the taking of an AP test in Physics that they *know* they will not pass—when in fact all the test is is a mechanism for getting college credit for the work done during the year. If we were thinking about what was best for those seniors, we would allow them to choose not to take the test. All this would mean is that they would forfeit the possibility of getting that credit which they wouldn't be getting in any case as they would undoubtedly not be passing the test.

Reiteration: The AP *curriculum* is excellent. The AP *test* is an add-on and NOT a formal part of the course.

8.) The bump-up in grade-point that students get for taking an AP class has nothing to do with their taking the AP *test* at the end of the course (some of the teachers were claiming that in accepting the bump-up, students were morally committed to taking the test). The bump-up is how universities compare a student with a B, for instance, in a *high school physics class*, to a student with a C in an *AP Physics class*. The rational is that if the AP student had been in the *high school class* and had put in the same amount of effort that they put into the AP course, their grade would be higher than their AP grade by at least one jump. So by taking the AP grade and bumping it up a notch, it allows universities to compare *high school physics students* to *AP physics students*. Because the bump-up has to do with the effort put forth during the course of the year, the taking of an AP test at the end has *nothing to do with anything*.

9.) And lastly, we don't need to *force* our seniors to take AP tests. If it is to their advantage, they will take them. Overall in the school, the year before the new rule was put in place, we administered over 600 AP tests to the 200 or so students who were eligible to take them (mostly juniors and seniors), and that was *without* a mandatory requirement.

To say the least, my efforts were for naught. I suspect the administration wanted the new rule because it fit into the newly emerging persona the school wanted to project. In short, it made the school look good. Being able to quote numbers of tests-taken coupled with high test scores is one way to validate our program. As far as I was concerned, though, it was doing this by screwing over my seniors, and I didn't like that. I also felt *played* in the way the faculty had been maneuvered into accepting the change.

Indeed, there was what I called the *law-and-order* faction in the faculty, people who regularly moved to hold the kid's feet to the fire on all sorts of issues. They would obviously have argued for the move, and they may have won the day in an open debate. But we never had the chance to have the debate. It was *wham, bam, thank you mam*. I was not amused.

And this is where I went wrong.

I had every right to be unhappy with the way the administration went about effecting the change, and I had every right to complain about it, but once it was obvious that the school's movers and shakers had made up their minds about the issue, I should have let it die.

Because I was being protective of my charges, though, and because I have always had a hard time dealing with feeling manipulated, I didn't. I kept at Grace for a full semester until she finally allowed some discussion of the topic in a faculty meeting. It turned out that few people had thought much about the ramification of the move, but making kids take an AP test at the completion of an AP class seemed like a no-brainer for most. The kids were getting the perk of having the class on their transcript, something that surely impressed universities (even if they didn't accept credit for the class, knowing that a kid had taken such a difficult class counted big). So as far as the faculty was concerned, part of the student obligation in getting that acknowledgement should be that they follow through with the test.

My pointing out all the inequities associated with forcing a senior (not an underclassman, but a *senior*) whose university didn't accept AP scores to take the test more or less fell on deaf ears. When a second vote was finally taken, the results were the same. (Interestingly, a number of teachers came up to me later and said they agreed with me, but that they felt they had to pick their battles and that this was not something they felt strongly enough about to go out on a limb over.)

That was that, or so you'd think.

Unfortunately, not so much.

One of the problems that came with the new rule was that every se-

nior taking AP Physics now had to take the AP test at the end of the year whether they had a stake in doing well or not. And because I was still in *I'm not doing an AP class, I'm doing a good college prep class* mode, that meant that I had no time for review . . . which meant that the students who weren't willing to study on their own before the test did lousy on the test. I was now getting more than a few students with *2's* and *1's*.

As I more or less said above, the *2's* were most likely students who decided to go in and see what they could remember from seven or eight months earlier, and just wing it. The *1's* were probably students who didn't try at all, just leaving the test blank. These were the kids who not only didn't study, they were probably irked that they had to take the test in the first place.

After some thought, I realized that the kind of students I was hoping for in the class were those who wanted to be physicists or engineers or science-related majors—students who were likely to follow through to the end due to interest—and not just bright students who were trying to pad their transcripts. My solution was to write a letter to prospective juniors outlining all the reasons why someone not having a good reason to take the AP course should probably *not* take the course. And as I got into writing the missive, many of the points about AP tests that I had enumerated to Grace seeped into the letter. I even mentioned that if you have to take an AP test and don't intend to study for it beforehand, it would be better to do nothing and take a 1. After all, how would you prefer your failure to be read? That for whatever reason you didn't try at all and as a consequence took a 1, or that you *did* try but didn't know much and could only eke out a 2? From the perspective of competence, I concluded, it would seem that the former would be better.

Before sending the letter out to juniors, I gave a copy to Grace (I wasn't trying to hide what I was doing—my primary attempt with the letter was to discourage students who were not really interested in learning hardcore physics from taking the AP Physics course) and to my seniors.

The letter quickly made the rounds. The backlash was quite fierce. There were teachers (and undoubtedly administrators) who were incensed that I was (or appeared to be) so unsupportive of *the program*.[10] And to make it worse, at the end of the year when the AP test did come around, 17 of my AP students took me at my word and accepted a 1 on their Physics AP, a kind of silent protest, I suppose, for being made to take a test that did

[10] In fact, surprise-surprise, the teacher who was so instrumental in making my relationship with AB a sour point for so many girls students at Poly openly advocated for my being fired for the letter.

nothing for them. Now there were teachers, parents AND Board of Trustee members who were incensed.

The mother of one of those students was the President of the Board of Trustees, a woman who was rich as Croesus and a huge financial backer of the school (one of the new buildings on the north campus bears her family name). I am fairly sure she called for my head.[11]

Debbie Reed (she was the school head at the time), to her credit, didn't fire me. The excuse she used, I believe, was that she didn't have the legal standing to do so (though who knows, she may not have wanted to do it in any event). In any case, in our contract the next year there appeared a long list of reasons the school could terminate a teacher. One of the reasons stated was *insubordination.* I know this was a direct consequence of my situation because during one of my conversations with Grace, she said, "This could almost be construed as insubordination." It's always nice to know that one has left one's mark on one's place of work. That addition to the contract was, apparently, for me.

Anyway, a year or two after all this happened, we had the opportunity to have our class time with the freshmen extended from a semester to a year. I wrote about that fiasco earlier. What I didn't mention was that the administration decided that once a teacher-opening occurred in the Science Department, they would try to attract a nationally known specialist in the *Physics First* program. We had several candidates come but none took our offer of employment. So toward the end of the school year, Poly looked back at the applicant pool of "normal" teachers who had applied during the

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[11] Interesting story: Several years after the blow-up, I was teaching an Honors Physics course and the woman's daughter was in my class. At one point that year, the Upper School administration, which was new, was about to put a policy into place that had the potential of making the home lives of students more difficult than it might already be. As I remember, it was the requirement that parents be emailed if a student's test score was below 70%, or if the score was one grade below the student's grade average in the class. The former stipulation was reasonable. The latter was ridiculous. It meant that if an A student were to get a B on a test—not an impossibility when talking about physics, a notoriously difficult subject—the parents were to be notified. Kids have enough problems at home without stoking the fire over trivial things like this, especially when kids of that caliber tended to self-correct on their own. In any case, I wanted to let the kids know what was coming, so I made mention of the situation in class. The girl, who I know was aware of the situation with her brother—remember, he was one of the kids who took a 1 on his AP test that fateful year—took this as one more example of my being disrespectful of the administration, so after class she came up to me and in a very loud voice said, "You are a disgrace as a teacher." I just smiled at her and told her to go away, but what passed through my mind was that I wasn't hearing the thoughts of a kid, I was hearing the thoughts of her mother.

year and came across Richard White, a teacher from the Oakland area who had been highly recommended by a Poly parent. Richard had been overlooked due to the *Physics First* emphasis. They contacted him, offered him the job, and he accepted.

Among other things, Richard was an experienced AP teacher, so the first year at Poly, he and I co-taught the AP course. I didn't realize it at the time, but this was a godsend for the administration. Their intention hadn't initially been to find someone to replace me as AP teacher, but I do think they wanted to punish me for the havoc I had caused and Richard just kind of fell into their lap.[12]

The long and the short of it was that in the second year Richard was at Poly, he was given the AP program as a whole. I had nothing to say about the move. The administration made the decision without consulting me. I was simply told that that was the way it was going to be.

Interestingly, it was around that time when several established, old-school teachers at Poly had managed to get themselves into the doghouse as far as the administration was concerned. Dick Sisley was the only math teacher in the Math Department at the time who had a Master's degree in Mathematics. He and another math teacher, Steve Robinson, had written a book that was being used by the school, but it was really hard for students to use because it was so formal. He more or less had the rug pulled out from under him book-wise that year. It wasn't unreasonable, but he nevertheless decided to leave the school over it.

I had the rug pulled out from under me, also, but leaving was not the direction in which I chose to go. After all, I was still going on the premise that the Brothers wanted me at Poly. So Richard and I made the best of the situation by agreeing we would try to make things work the way things usually worked in schools with two AP teachers. One teacher would teach the class for two years, then the other would take over for the next two years.

Unfortunately, after Richard's two years were up, I was told by the administration that they were happy with the way things were, and that

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[12] Several years after Richard arrived, I was in Geppetto's workshop (that is what kids named my back storage room and workshop when I was the only physics teacher at Poly) during *Back To School Night*, and I happened to hear Richard say to his assembled AP parents, "I was brought in by the school to straighten out the AP program." It was a little hurtful to hear because it made me sound incompetent and, as I said above, I knew that wasn't the initial impetus of the school during that hiring period (in fact, Richard wasn't trying to rag on me—he was just fielding a question off the cuff). Still, given my attitude toward the AP class in general and my serious disgruntlement with the testing situation for seniors at the time, I can imagine an administrator telling him that during his courting period.

a change would not be made. I dissented, of course. When I did, I was told that it was obvious to them that I didn't support the AP program, so I wasn't going to be allowed to teach it. I pointed out that I was more than capable of teaching the AP *curriculum*, which I thought was great, I just had problems with the mandatory AP testing *of seniors*. They didn't care. Richard was the new AP teacher and that was that.

And so, dear friends, I was retired from teaching AP Physics at Polytechnic School. It was my own fault. Even though the intent of that letter, way back, was to dissuade students who weren't serious about physics from taking the AP class, letting it get away from me the way it did was really stupid. And as that Honors Physics student pointed out, it hasn't been all bad. I've had the opportunity to work with our "other" science students for over a decade, and for the most part I've enjoyed my contact with them immensely.

In a cosmic sense, though, it has been kind of amusing. Richard is a powerhouse as a teacher. He has developed the AP class in ways I probably never would have entertained. He sculpted the program away from my *cover everything* approach to one in which only AP relevant information is addressed, thereby creating time at the end of the year for two weeks of very much needed review (not surprisingly, his AP scores have been stellar). He created a Web site that sends physics questions via email to thousands of interested parties daily under the moniker of *learnapphysics.com*. He is national, nay *internationally* known and a force within the AP community. The school is lucky to have him.[13]

Still, I have the distinction of being the only teacher in my school and, in all probability, THE NATION, that has on the whole a Master's degree in Physics, has written a two-volume, Calculus driven, 1300 page hard bound physics text that has been used by schools outside his own institution, grades AP tests for the College Board every year and *still* ISN'T ALLOWED TO TEACH AP PHYSICS IN HIS OWN SCHOOL (this, as of 2012).[14]

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[13] It is 2019, and Richard no longer does the emailing, evidently depending upon Twitter now.

[14] Sidenote: Dr. Jamie Neilson was the Upper School Head for several years during the late 2000s, early 2010s. He was not particularly enthralled with the AP program as it stood and in all probability agreed with a lot of what I wrote in that letter. During his tenure, I was finally allowed to teach AP physics again but only during the second semester and only by taking over one of Richard's already established classes (I mentioned this earlier). He (Richard) had developed a second semester Computer Science course into which he needed to switch. To do that, I had to step into the AP Physics class he left vacant. When this

As always, you gotta give karma kudos for having a sense of humor.[15]

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[One other Poly hassle on behalf of my students.]

As it is that I am talking about Poly politics and how it has affected my life as a teacher, there is one other bugaboo that has nagged at me, more or less, the entire time I've been at Poly. A little background is needed to understand what it is.

When Poly's Upper School (its high school) was first created (this happened in 1959—the school itself was founded in 1907), the founders were very thoughtful when it came to how they set the school up. They knew, for instance, that University of California Admissions demanded that students take four years of English. Consequentially, one of the graduations requirements for the high school was four years of English.[16]

Another observation made was that colleges didn't expect their incoming freshmen to have taken two to three years of high school science, they expected them to have taken two to three years of LAB science. This distinction was important because it posed a problem for the sciences.

Consider a class I am well familiar with, Honors Physics. Honors Physics is a college level, non-Calculus physics course. It covers Classical Newtonian Mechanics and Wave Mechanics during the first semester

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happened, students, who by then had it in their minds that Richard was (as I said earlier) "the face of AP Physics at Poly" and their rightful teacher, were understandably irritated with being sloughed off to me, so the classes never went particularly well. The students also didn't appreciate my efforts to broaden their understanding of the physics because I was showing them stuff their compatriots in Richard's classes were not having to deal with (remember my feeling that the class should be more college-prep than AP?). The end result was that although the school finally did decide to let me teach the class again, what, ten years after the banishment, by that time everyone in the school associated Richard with the course and I was viewed as an interloper. Interestingly, that is exactly the way Richard's students viewed him right at the beginning of his first year. In very short order they came to love him, but right at the beginning (during the first month or so) when I was still viewed as the king, I happened to know that many students who were assigned to his class were not happy (I know this because they came and told me so). "And those who would be first . . . "

[15] And as a final bit of amusement, it is now 2019, and as you know from past chapters, I am now back teaching the AP class on a regular basis.

[16] This, I might add, is serious overkill. The primary responsibility of the English department is to teach students how to write intelligently. It doesn't take four years to do that, especially given the fact that the students are doing this in a language most have been speaking since they were two years old. Colleges require it, though, so that's what was done.

and Electricity and Magnetism during the second semester. This is the standard, generally accepted curriculum for all Honors Physics classes literally across the country. An Honors class in Montana will essentially cover the same material as an Honors class in Rhode Island or California or Hawaii. When a college sees "Honors Physics" on a kid's transcript, in other words, they know exactly what the kid has been exposed to in an academic sense.

There is a rub, though—that lab requirement. There is as much content in my Honors Physics class as there is in Greg Feldmeth's *U.S. History* class or Senora Mair's *Spanish 3* class or any of our English classes, and it's the same at the college level. So if you were to take an Optics class in college, you would do *no labs* in that Optics course. Why? Because given the content requirement, there would be *no time* for labs. If you wanted the lab experience, you would have to take an *additional* class, a lab class, that focused on the experimental side of the discipline.[17]

High schools can't mandate a separate class for labs, so they do the next best thing. They attempt to incorporate a lab experience into the course itself. And if they want to provide a really good lab science program for their students, they don't take time away from the content side to accommodate labs, they add *additional* time.

That is what Poly's founders did. Even though none of the original architects of our school were science people by profession, to their credit they had the foresight to realize that the sciences would need an additional period of time per week to fulfill that lab requirement.[18] That is where the arts/labs period at Poly came from (it existed at the school until around 2015—it has since been replaced by a "lab period" in our new six-day rotation). When I first arrived at Poly, that period (there was no Arts program when I first arrived) went from 11:00 am to 12:05 pm every day. Once a week, students would go to their science classroom to do a lab (the rest of the week they would spend that period hanging out or doing homework or

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[17] As I pointed out in the first volume, in the world of physics, this divide is even more stark as physicists are either theoreticians (those responsible for what is usually taught in a physics class) or experimentalists (their domain is the lab). These are two fundamentally different critters.

[18] Minor note: Lots of school do *not* provide additional time to do this. There are all sorts of reasons why, but the consequence is the same in any event. Students at these schools get short-changed. I, for one, went to San Marino High School when I was a kid. At the time, San Marino was one of the best public high schools in all of California, yet in my physics class (which was listed as a lab science on my high school transcript) I didn't do a single lab during the entire year. When I got to ASU and started my Electrical Engineering coursework, that deficiency really bit me in the ass.

attending “activities”—it was during one of those activity periods that I started my E.Phil gathering).

As you can imagine, people who were not in the science department and not aware of this additional requirement were not sympathetic to the sciences having additional time with our students. I can remember explaining the situation to selected individuals (I did this three or four times for Greg Feldmeth during the course of the forty of so years I knew him) and having them say at the end of the conversation that they understood "now" why the sciences needed the extra time, then four months later they would revert completely, reversing themselves back to the old saw about the sciences getting away with murder.

This disconnect between the science folks and the rest of the faculty was a huge pain in the ass. Every time a new Upper School Head would come in, people would complain about the daily schedule and, specifically, about the arts/labs period. The new administrator, wanting to appear receptive to faculty input, would order a review of the daily schedule. People would come up with all sorts of alternate plans including getting rid of the arts/labs period altogether. It would be a veritable blood bath for a year with teachers from one department furious at teachers from another department and friendships at least temporarily ruined, then when the dust would settle the administrators (after been educated as to the needs and problems the science folks were facing) would conclude that the schedule we had was the best we could come up with, and nothing would change.[19]

This has been going on ever since I started at Poly. Every five to seven years, we’d go through a huge ordeal about the daily schedule. The most recent permutation came when Jen Fleischer, more or less out of the blue, told our Science Department Chair (Robin Barnes) that the L-period had to go. The L-period was the most recent rejiggering of the daily schedule to accommodate the lab need. We had no idea why she decided to go to war over this, but it was one reason why we were relieved when she somewhat abruptly announced that she would not be returning “next year.” (I have a suspicion I know who put the bug in her ear about the L-periods, but I could be wrong so I’m not saying here. I’m mentioning it because the presence of that individual had something to do with some of the meditations I did while all this was happening. I'll say a little more

[19] We finally got a new, six-day rotating schedule that is a dream for administrators but not so great for the academic classes due to some rather unexpected reasons. Given all the administrative perks that are baked into that schedule, though, I doubt we will be seeing it changed much in years to come. Fortunately, they didn’t eliminate science’s additional time, but it was touch and go for a while there.

about that shortly.)

During that period of concern, I spent many a day having mock conversations with her (Jen) in my head about the havoc a move like that would make. The following is a summary of what I probably would have said to her if I had found myself needing to defend the science department's position:

> Removing that additional day would effectively require the science department to cut its program by 25%. That is, right now we have four days during the six-day rotation to present content, and one additional day to do a lab. If we lose the additional day, we can't stop doing labs (if we did, we'd have to lie to colleges about our classes being *lab* sciences). That would mean we would have to commandeer one *content day* to do labs, which would mean we would no longer have four days to do content, we'd only have three days. That's a 25% decrease in content time. Imagine the school going to a U.S. History class and saying, "We'd like you to do nothing for the first quarter of the year, then start at the beginning of the second quarter and try to present all the content that is appropriate for your course over the next three quarters . . . in other words, we'd like you to do what you do in 25% less time." You'd hear howling all the way to San Francisco if the school asked that, yet that's what taking the L-period away from the science department would be tantamount to doing.

That was my little daydream. It addressed the problem in a very basic, superficial way. Meditation opened up some more interesting observations about the implications of the situation in a cosmic sense.

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(How to deal with a seeming failure . . .)

As to that last point, how do you deal with someone who is doing something you feel in your bones is fundamentally wrong and that is going to hurt people (my students in this case) for whom you feel protective? That question has to be answered, and answered at a gut level, because chelas work in situations in which people are acting in all sorts of unGodly

ways, and yet they can't allow themselves to be thrown if things don't seem to work out.

That is what I struggled with for several months. How do I deal with the possible loss of something I think is needed and worthwhile at the hands of someone whose motives are questionable? These are the little insights that dropped on me through my little meditations:

> —Nobody acts in a void. A Beings who is acting in a way that seems poorly can certainly be acting out of self-interest, but that Being is also being nudged by the spiritual necessities of the individuals he or she is affecting. This doesn't let Beings off the hook if their actions are destructive, it just acknowledges that everyone acts to some degree as a mirror to the world.
>
> —Nobody does anything they think is unreasonable. Understanding why someone does what they do helps to mitigate their actions in one's mind. Again, it doesn't excuse those actions, but it makes it easier to deal with. (Upon reflection, I think I know what was motivating the individual in question. She's not a bad person, she just has an agenda.)
>
> —It is also important to remember that when you run into someone who does things that grate on you, there may be a karmic connection there that is trying to work itself out. The less willing you are to meet that someone with compassion and kindness, the more likely you will be to tighten the knot.
>
> —The lesser-side of the child-self doesn't like to have things it feels it needs to succeed taken away from it, but it is kind of important to trust in karma (this is a corollary to the *nobody acts in a void* observation). As much as I would hate to see my students handicapped with less time to learn my subject, it may be karmically correct that they be so handicapped. I have no idea where those Beings have been or what their real path is. Maybe deprivation is right for them, or maybe in their deprivation something they *really* need takes its place. If the move is made (after I have done my best to head it off), I'll just have to accept the outcome (the key here being that I need to remember that actions taken are never karmically senseless).
>
> —The Brothers once called *gratitude* a spiritual solvent.

Finding something to be grateful for in the situation, that is very important. Examples: It would be fun of trying to figure out how to teach physics effectively with one hand tied behind my back . . . and there is the continued pleasure of teaching at a school with such wonderful kids and faculty friends. Life could certainly be worse, even if (at some point in time) the powers that be made a move that forced me to diminish my class expectations.

—And lastly, I should never forget that life is a mirror. If there is friction in it, there is something inside me that karma it trying to get me to see.

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[One more thing, this one fun . . .]

Sometime around 1994, the senior class cabinet decided that they wanted to honor John Fay, then a math teacher at Poly, for all the effort he had put into helping students in their class with Poly's very rigorous math program (he apparently had them in the sophomore year, the junior year and the senior year). To do this, they created what was to become known as *The Teacher Appreciation Award*. The "rules" for the selection process were simple. After discussion amongst the seniors, there would be a secret ballot. The winner would get the award.

I know about all of this (the original award being meant for John) because I was told later by some of the kids that, once created, there was a faction of seniors who wanted to give the award to me that first year. There was evidently some pulling and tugging over this until the cabinet pointed out that the award was CREATED to honor John Fay, and what the hell were people doing trying to steer the award away from him? The cabinet prevailed (rightly), and the first award went to him.

This was a time when I was very well liked by my students. I looked young and, frankly, like them, and being a physics teacher gave me license to be as wild and crazy and entertaining as I wanted (and believe me, I delighted in all those things). Along with that, I was doing the Eastern Philosophy activity for seniors with upwards of half the senior class regularly in attendance. Sooner or later, I was going to get the award.

Steve Robinson, a very popular math teacher, got it the next year. The year after that, Susan Grether got it (halfway through that group's sophomore year when most of the class was taking chemistry, the chemis-

try teacher, a much beloved Eric Stelter, died of AIDS—Susan stepped in and finished off the AP Chem course, to the great appreciation of the students.) The fourth years was 1998. That was the year it was given to me.

I was a bit embarrassed when it was announced (one of the students that year said I appeared to walk up so casually, it was as though I knew I was going to get it—that wasn't the case, I didn't know, I just wasn't crazy about being in the spotlight). There were a few other years when I almost got the award for a second time, but there was always something or someone that nixed the option.

Garine Zetlian, one of the college counselors, received it twice. Laurianne Williams, a math teacher, student affairs coordinator and someone who more or less held the school together as far as the students were concerned, also received it twice time.

I received the award for the second time from the class of 2024. If you think about it, it was kind of cool. I was 50 when I got it the first time and 76 when I got it the second time. Having kids think enough of me to give it to me twice, 26 years apart, reminded me of Rolf's words years earlier. My path was to deal with the young, mixing up a brew within myself that would attract all kinds . . .

With considerable whimsy and *tongue in cheek*, the commendation that went along with the award (written by class president Luke Haenisch, who has quite a sense of humor) is presented below.

> The man I am giving this award to today doesn't simply teach. This man, much like the Buddha, also possesses the profound ability to open the third eye of the student, so that they may be bewildered by the world and seek to understand it. Because of this, over the course of taking his physics class this year, I've become convinced that Mr. Craig Fletcher is nothing short of a magician. The mind-bending demonstrations, the captivating life lore, the eloquent vocabulary, all this serves to construct a being that transcends what is traditionally expect of a teacher.
>
> Yes, I've learned about the law of Biot-Savart and the Conservation of Momentum, but more importantly, I've learned about the genius of the MOD maneuver, the paradox of the Great Pyramid, and the absolute fallacy of everything that we perceive as the physics world. Confucius

said, “Ignorance is the night of the mind, but a night without moon or stars.” If that is true, then Mr. Fletcher is undoubtedly the all-illuminating sun.

The long and short of it, folks, is that Mr. Fletcher shows us each day how to live life with curiosity and wonder, to be free from mundane and dull expectations, and to have a good laugh now and then.

That’s all, life could be worse!

It was clearly over the top, and as I had received a standing ovation a few days earlier when I was acknowledged in front of the entire student body as “leaving” (this was the year I semi-retired), my child-self was really on overload. I appreciated it all, but none of it was probably good for me. I have enough things to worry about without having to deal with a fat head. Then, again, as was pointed out*, life could be worse.*

. . . And as an addendum, you do have to marvel at the fact that twenty-years earlier, the school had deemed me unfit to teach the AP physics class. It was karmically correct, but given all the seniors I didn't have daily contact with during that period, I'd be curious to know what the underlying (cosmic) dynamic of that situation really was. :)

Chapter 45

Karma As a Balancer of Energies

[Several of the chapters after this one will be substantive but fun, I promise. This chapter, maybe not so much fun. It is a very late addition. It will be short, will talk generally about karma, and really should have gone into Volume 1. In fact, I pointed to the ideas back then but didn't do a very complete job of it. As I remember, I ended the section with, "I really don't understand this very well." With all the things that are happening in the world (I'm thinking of Gaza and Ukraine and Somalia and Sudan), it really does seem like something I should talk more about, just to be complete.

As an additional note, and this is really for those of you who haven't read Volume 1, it is important to understand that with reincarnation, the idea that a baby is a new, pristine individual kind of goes out the window. A baby is, indeed, a new body, one that has not yet become adept at negotiating the world. It needs to be protected and nurtured as best the parents and society can. But the Being that uses that body for experience has "lived" in many bodies in many circumstances over a long period of time, and definitely has, trailing behind it, a karmic history. There are, in other words, no true innocents in our world. That said, onward.]

I have been making references to *karma* throughout this book. My main message has been that karma is a mechanism that, in conjunction with your High Mind, draws your child-self (which is to say, you) into experience designed to hopefully enlighten. It is, as the Brothers used to say, a teacher. That teaching aspect is what I have been focusing on.

There is another side to karma that I haven't said much about, that has to do with *the balancing of energy*. This is a little more obscure, but it is a part of karma's task. To understand it, we have to look at *the self* a little more closely.

Later in this volume, you will find me rhapsodizing about my bike ride to school every day under the delightful canopy of trees that line San Pasqual Avenue. And one of the things I will point out is how *unaware* I

often am as I do this. As I put it, "I ride in my little bubble, thinking my little, child-self thoughts . . ." I'm not putting myself down here because I think it's the fashionable thing to do. I am pointing out how little time I have spent in my life being focused and awake, being consciously aware of what is around me and what I'm actually doing . . . which brings me to my point.

If the small enlightenments I have personally experienced are any indication, and if what the Brothers have said are a true reflection of the reality of this place, the view I regularly subscribe to from my tiny *perch of self* is oh so small in the face of the reality of the immensity of my Being. Humans are vast, they just don't know it.

Think about what goes on in your mind as you move through life. You are constantly thinking. Some of your thoughts are selfish having a decidedly negative karmic tinge to them; some are selfless with a positive tinge; some are relatively neutral being of the self-maintenance sort. What they all have in common is the expenditure of your own, personal, *thought-energy*.

Many, reasonably, think of thought and the energy that rides on it as being ephemeral, not real. It *is* real. It has form and power, and in expending it, you affect people, you affect your surroundings, you affect the inner world thoughtforms that support you. Every thought you proffer does this, which is huge (think of the millions of thoughts you entertain *every day*).

So what is really happening when you animate a thought? For instance, what happens when you animate anger? When you do that, you are not just shooting daggers at the object of your ire, you are linking into the thoughtforms *associated* with anger. You are letting those thoughtforms flow through you. And in doing so, you are feeding them with your own personal energy.

In other words, a piece of you, *your energy*, which is a very real thing in the inner worlds, becomes a part of that overarching form. This is the mechanism that the Divine Mind put in place to link you to your actions (action being the stepchildren of thought) and to keep track of all the actions you have taken over all your incarnations here on Earth. It is an elegant mechanism, and it was made to serve you as you attempt to learn how to skillfully deal with *exist in matter*.

In talking about karma, what I haven't made clear, I don't think, is that karma's responsibility isn't just to draw you and me into experience designed to shake us awake in a spiritual sense. It is also charged with providing us with opportunities to balance out this energy defect. Sometimes

referred to as *burning off negative karma* (which is not a great representation of what's happening, but is the phrase you most commonly hear), this can happen in many, many ways. The simple act of being *selflessly kind* will certainly have an energy-balancing effect on all the times you have *not* been kind. This is a noble, fairly gentle, fairly slow-paced way to go. For Beings who want to move more quickly, or who have accumulated enormous amounts of negativity over their many lives and need to shake loose some of what is bogging them down, another possibility is the experiencing of lives that are, at least from the child-self's perspective, challenging and stressful. It is not for nothing that we are in the Kali Yuga and are seeing many Beings experiencing *difficult lives*.[1]

One of the main objections to this line of thinking is that it suggests that "the victim" is somewhat responsible for his or her situation. We, as a society, have gone a long way toward disabusing people of that belief. And I might add, I would NEVER actively make a victim feel worse about their situation by suggesting that the situation was their fault. But the reality is that the world is not the random place it appears to be. You are your own parent, and although it is definitely NOT acceptable to judge others for the situations they find themselves in, neither is it reasonable to think that experience has come for no reason.[2] As we don't have the insight to

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[1] And by "difficult," I mean DIFFICULT. Think about what it would be like to spend your life in a body that didn't work, that was paralyzed or had a brain what was cognitively damaged. These are not trivial situations (and certainly not situations most child-selves would willingly enter), but for the Beings who experience them, they can be profoundly moving in a long-term, inward sense. This is part of the reason why some American Indian tribes honored individuals who in our society would have been deemed *mentally disturbed*.

[2] I had a few adjacent thoughts about all of this as I wrote it. The first was, "What doesn't kill you, makes you stronger." Pretty clearly, karma is trying its best to help us become the best we can be. Experience, even really hard experience, that doesn't kill us or even that does but that makes us better, that's what karma wants to provide.

The second comes from the very excellent book written by Hope Jahren, *The Story of More*, and is certainly not reflective of everyone but does, I think, have a lot of subscribers. It reads: "Most of the want and suffering we see in our world today originates not from Earth's inability to *provide* but from our inability to *share*. It is because so many of us consume far beyond our needs that a great many more of us are left with almost nothing." This is right in line with the Brother's observation that *when you carve out a place of safety for yourself in the world, on the edge of that place will be weeping.* How could karma not respond to all of that?

Lastly, nobody in the circle of Beings that is you and me are perfect. There will always be little things that are wrong that, if you are observant and honest, you will see in yourself. Even Gandhi, who was clearly a cut above, lamented that he had never executed a truly selfless act. So it shouldn't be surprising that karma does not afford us seamlessly wonder-

know what that reason is in a specific instance, the best we can do (if we are being spiritually responsible) is to *judge not* (let's hear it for the Bible).

Coming at this from a little different angle, karma brings people into tough times for all sorts of reasons. There is the Being who, for whatever reason, is drawn into a bad situation specifically as a gift to others, providing an opportunity for the others to act selflessly or nobly, or to just help out. There is the Being who is being pressured to possibly make a jump in understanding. On a little different level, though I think it is rare, the Brothers said there are *chelas* who enter difficult lives to cleanse away impediments that would hold them back from moving *more quickly* upon their spiritual path. That means you will never know if that down-and-out soul is a *chela unaware*, or someone like you or me who needs help shedding some of their baggage, or someone like you or me who is being given the opportunity to learn about life more deeply, or maybe someone who has accumulated so much negativity around themselves, the only way life can allow them to move forward in any way is to cleanse them through fire. Beings have freedom of will. They have the privilege of responding to the situations they find themselves in in whatever way they choose. It is not uncommon for Beings to respond poorly, but not always. The opportunity needs to be given.[3]

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ful lives. Even the rich and famous are miserable about something.

[3] At this point, when I was doing the original writing, I wanted to include a real-world example to bring things to life. The day after I finished, karma did what it has always done, it provided.

I was listening to NPR, and Terry Gross of *Fresh Air* was interviewing Ricky Ricardi, author of a new book on the early life of Louis "Satchmo" Armstrong. For you culturally deprived souls, he was a jazz trumpeter and coronet player who, in the 1920's and 30's, pretty much wrote the book on jazz improvisation (he also had a distinctively remarkable, raspy, singing voice).

According to Ricardi: Satchmo's mother was a prostitute (when Loui would talk about her, he'd say, "Whether or not she was a prostitute I cannot say, but she worked hard and taught us the rudiments . . . "). Living in one of the toughest parts of New Orleans, by the time he was five or six he had seen gun fights and stabbings. There were gamblers and pimps and prostitutes, and his mother got arrested regularly. There would be three-or-four-week periods when he'd have to watch over his baby sister, cooking for her and for him, and doing whatever he could to survive. He worked selling newspapers, and he worked for the Jewish Karnofsky family as a coal seller (he was always grateful to the Karnofsky's; he said they treated him like a human being, and it was where he came to love Jewish food and Jewish music). He got arrested at the age of nine for being "a suspicious character," and even later in life (according to the author) when working as a musician in Honky Tonks, it was a wonder he didn't die because every night there'd be gunfights with bullets flying all around him. He had a childhood that, if it had been a Hollywood movie, somebody would have said, "This is cliche, it's rags to riches. Nobody could have actually experienced all of

So how to deal with all of this? For people in distress, yourself included, the best you can do is the best you can do, trusting that the karmic law has their/your best interests at heart even if that means the child-self experiences pain and suffering along the way. It isn't pretty, but this is a place of growth, and growth sometimes requires discomfort.

And again, I would never say any of this to someone who was experiencing what came across as a horrible life. This discussion is between you, me and the cat.[4]

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this." But in his case, it was all true.

Although all this background was interesting, what really caught my attention was something the author said about Satchmo late in the interview. He said, "He always had a way of finding the good in these situations, situation that I think if anybody else had lived or spent their lives talking about or writing about would have come off as horror stories. But Armstrong always found a lesson that he learned and internalized, and in his mind, everything he did made him a better person."

As I said, "It is not uncommon for Beings to respond poorly to travail, but not always. The opportunity needs to be given." With respect to experience, Louis Armstrong was evidently one of those Beings who moved in the best way humans can.

[4] One other thing: This *balancing of energy* aspect of karma is, I think, where Hindus got the idea that karma was a *carrot and stick* affair. If you are good, good things come. If you are bad, bad things come. It is a misunderstanding of what karma is doing, but it makes sense from a personal-self, child-self perspective. After all, when balancing happens, life is often difficult. As far as the child-self is concerned, *difficult* translates as *punishment*.

Chapter 46

Earth Karma, Maybe (or Not)

[Three things: When I see patterns in my life, I am usually intrigued, especially when they seem to have roots that are deeper than meets the eye. Problem is, if the patterns appear to point toward catastrophe, well, that can be a bit of a downer. So the first thing I want to point out is that I don't find stuff like that depressing, I just find it interesting. Second, on a little more technical note, this chapter is going to start with the itty-bitty and grow to the immensely over-arching. And lastly, the chapter is going to start out looking like my goal is to write about my past lives. In fact, that isn't what it is about. You'll see!]

I really don't want to get people excited about the idea of past-lives. Although individuals can sometimes get personal inklings about where they have "been" (in a cosmic sense) just from the way their current life seems to be proceeding, there is no reliable way to know about such things for certain. Going to a psychic is dumb as most are either frauds or individuals who might be a little bit psychic but don't really understand their "gift." And even if you did find someone who was dead on, knowing about where your patterns have come from may not be the right thing for you. Learning to deal with your situation *in the here and now* is what is important. You don't *have* to have information as to why a situation has come to you. In fact, it's more impressive in a karmic sense to be able to deal with life *without* knowing the whys and wherefores.[1]

[1] I think I mentioned this earlier, but I, like my mom, occasionally have dreams in which exist very well-defined symbols that, if understood, are a spot-on read of my state of affairs (not surprisingly, her symbols and my symbols match identically). A snake always means I have an enemy (the fraternity brother who, out of the blue, slept with my girlfriend when I was a freshman—I didn't find out about it until several days after the event, but the night it happened I had a dream of a snake biting me); getting fecal matter (poop) on me means I am going to be very ill (the first dream I told my mom about was me slipping in dog poop—she seemed quite concerned and asked if I'd gotten it off of me—I said *yes* and she seemed relieve—two days later, I got the measles complete with a 104 degree temperature). Consuming cake or pastries or any kind of food means I am going to lose (or be made to spend) money in an unexpected way (just after my step-dad died, I had an "eating cake" dream—a few day afterward I found out that the condominium that was a major part of his estate had lost about a quarter of its value in the past year and the inheritances from the estate, including my part of it, would be considerably less than expected). Mom was constantly trying to figure out what her dreams meant and how they would affect her upcoming

That said, the Brothers did tell me sparingly about lives that I had had. One explained my relationship to Kay; one my relationship to the group and Kay and the Brothers; and a few talked about relatively mundane and unprepossessing lives as far as the human experience goes, but for which they thought I ought to be aware. I believe I've mentioned at least a few so far. There was the Italian life where Mary popped up; there was the life attached to the individual for whom the *long and short path* was significant (which may have been Mary, or not); and there was the Greek life in which I had a bit of wisdom and taught "young minds."

As for the so-far unrecounted lives, I'm about to say something about them because in looking back, I can see a very clear, karmic arc whose educational value is just too great to pass up. This arc won't be immediately evident, but it will solidify as we go. Stay with me.

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[Battle . . .]

I don't remember when I was told this, but the Brothers said I'd had a brief life during which I found myself a young, relatively happy, minor nobleman.[2] At the outbreak of war, I was given (or bought) a commission. In my very first action, I found myself in a massive infantry charge (I think it was an infantry charge) of which the Brothers said, "Fortunately, you were killed immediately."

Two things to note about this life. First, I was living in a situation that was apparently nice, then things devolved. And second, I found the Brother's take on the situation—a choice between my *killing another* or

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life. I, on the other hand, tended to ignore mine. Why? Because (as I said above) I thought it was better to learn to deal with life as it came instead of being primed. I'm not saying my way was better, but it did do me well when I got into a position where I could, through the Brothers, have been constantly asking for information about past lives. I didn't do that because I wasn't wired that way. I wanted to move into experience ready to learn and, hopefully, to do well in a spiritual sense because I'd built into myself the tools needed *to* do well. I didn't always succeed, but using a cheat sheet in the process just seemed wrong.

And as an add-on, going to a psychic to find out about your future is really dumb. Even the best psychics can only sense where the lines of karma are likely to take you. Knowing that, you can force life to move in that direction even if circumstances change. Not good!

[2] At another time, the Brothers said I had been the fourth son of a nobleman in Scotland. With no real inheritance for the fourth son, I was allowed to live in one of the castles, and that once a year when the village would have its Celtic festival, I would join in and *dance like the wind*. This may have been that lifetime (though I'm just conjecturing here).

my *being killed myself* (with *my being killed* preferable),[3] enlightening.

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[Plague . . . It's 2020, and this wasn't a part of the original chapter (it's kind of an insert). Under the circumstances, I find it (again) interesting.]

[3] In thinking about it, my impression was that I was a child of the time, which is to say someone who was not very thoughtful. In my little bubble, I didn't see anything wrong with killing another human being if it meant defending my country—not an uncommon sentiment for most in any population. I mention this because I don't want people thinking that I am somehow looking down at individuals who have gone to war and ended up killing in the name of patriotism. It is notable, though, the psychological toll that doing something like that seems to have on people. Men (and presumably women) who go off to war often don't come back "right." I think it has a lot to do with the fact that they have found themselves compelled to do things that are not natural under the karmic law . . . like killing other human beings (even when those others were trying to kill them). (I talk about Gandhian nonviolence and an alternative to *going to war* in the E.Phil book.)

As an aside, I have this feeling that somewhere I talked about a friend of Kay's named Dr. Jussic, but I can't find where, so I'll do it here and chance repetition. In the 1930's, Eugene Jussic was living in Germany where he was born and was a citizen. I don't know if he knew about Theosophy and the Brothers and karma and reincarnation, but he was strongly drawn to Tibetan Buddhism and its traditions (he was particularly interest in tummo, the practice of controlling the body's temperature—he evidently spent many of his younger years attempting to achieve that state, practicing by swimming during the winter in the River Main in Germany—average temperatures between 33^{o} and 43^{o} F—then getting out of the water and wrapping himself in a cotton sheet to sit and dry—he got to the place where he could do this comfortably). Following the best of the Buddhist tradition, he was a pacifist and completely against killing. When World War II broke out, he was in medical school. He refused to join the Nazis party, but he did join the army after the Nazis threatened to kill his family. They allowed him to finish his medical training whereupon he was sent to the Russian front (while there he apparently taught his friends about tummo thereby giving them a chance to not freeze during the Russian winter). Additionally, while there he decided that if he got into a fire fight, he would shoot over the enemy's heads, and that if it came to hand-to-hand combat, he would allow his adversary to kill him. (It was probably these decisions that allowed him to come into contact with the Brothers through Kay years later.) It never came to that. I don't know the exact timeline, but it was far enough into the war that Berlin was beginning to take a beating from Allied bombers, so he was recalled to Berlin as a doctor (two weeks after he left, his entire regiment was wiped out to the man). He got through the war, earned a ton of additional degrees and immigrated to the U.S. where he met Kay (actually, he may have earned the degrees in the U.S.).

My point in all of this is that there are individuals who are far enough along "the path," so to speak, to be able to be put into an armed conflict situation and act reasonably well in a spiritual sense. I wasn't there yet (at least superficially) in the life I've recounted (or, at least, it wasn't karmically correct for me to take that particular moral stand at that point). As the karmic repercussions of taking a human life are profound and extensive, karma was kind enough to remove me from the situation by allowed me to die "immediately" before I could do any real karmic damage to myself or anyone else. That was the Brother's point.

It was just a single sentence, but at one point the Brothers told me that I had had one short life which ended with me dying in a plague. I remember thinking at the time that maybe this life would end the same way, except how could that possibly happen in 21st century America.

So it's March, 2020, and I just spent last week teaching my classes on-line due to the coronavirus (COVID-19) outbreak that, right now (it's March 23, 2020), has one-fifth of the WORLD'S population in a self-imposed, lockdown quarantine in an attempt to control the spread (evidently the kill rate is between 1% and 10%, though those numbers are iffy).

People die of the flu every year and I (and the world) don't take notice, but there is now a real possibility that I may die in a plague, just like I thought. I guess we'll see!

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[Back to the main thrust of the chapter, and *tendencies* . . .]

I never really thought much about my tendency to hold onto things until they are completely dilapidated (the bike I rode for 39 years until it broke due to metal fatigue, or the Honda Accord I drove for 26 years). It never struck me as odd at how *at home* I feel in wilderness. I never really questioned how strong my drive is to protect others (sitting halfway between "the rug" and "the back door" in that first-grade classroom, *guarding the door*). I never thought much about my inclination to tinker with stuff—to fix things instead of throwing them away (and my associated tendency to keep odds and end because you never know when you might need them to fix something), not to mention the enjoyment I get from physically building things with my hands (creating exotic physics demonstrations; laying that brick courtyard out back; paneling Kay's back studio; putting in the AC unit in that same back studio; transforming Cathy's garage into a functioning, dry-walled library, complete with tons of free-standing book-shelving; tearing down the back deck, then designing and building a new one; constructing a ten-foot high redwood fence along the back of my property to replace the termite infested fence I had built for Kay forty years earlier, to name a few examples).

Who knows, maybe all that was due to genetics or just environment (as for the tinkering, grandpa Scott—my dad's dad—had a very cool workshop built onto the back of his garage—I found it absolutely enchanting when I was a youngster, a veritable wonderland, complete with a workbench backed with cabinets that had tiny little drawers that housed all sorts

of both every-day and exotic wood-working gizmos and gadgets).

Still, before Kay got to know me very well, the Brothers did tell me about a life in which I had been a boy in a pioneer family at the beginning of our nation's history, that had homesteaded in an isolated, desolate area that was populated by Indians.

I didn't much think about it at the time, though in looking back I can see that some of the characteristics I have listed above would rather naturally fall out from (or at least be reinforced by) a life like that—my feeling of comfort in the wilderness; the enjoyment I derive from building things; my tendency to be protective.

I didn't live long in that life. A raiding party of Indians arrived one day, killed my father, my mother and me, and took my two younger sisters away.[4] What was surprising was that this was a life that I really didn't need to know about at the time. I wasn't second-guessing my tendency, for instance, to be protective. I suspect they told me about it because they knew that sometime in the future, I might be doing the kind of introspection that you see here, and that it might be useful information.

An extension of that last observation (about being introspective) is the possibility that they knew I would, at some point, begin to notice my life-tendencies and how certain patterns in my life presented themselves in a lot of different forms. More about that shortly.

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[Mom . . .]

As another aside, and to be complete, there was my connection with my mom. I didn't ask about this, but she did.

In a nutshell, it seems I was the father of a very, very large, very poor peasant family in India several hundred years ago (actually, they weren't specific about the era). During a time of famine, my wife died. As was the tradition, my eldest daughter took over the running of the household and the raising of the children. We worked together very well as a team in that life on behalf of the family.

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[4] I'm sure my protectiveness was strongly challenged by the event, as I remember my inner reaction to being told the story was one of serious discomfort for not having been able to protect my sisters and family during the attack. I don't know if the Master who was talking at the time picked up on this or what, but he said at the end of the story that I shouldn't be upset about the kidnappings because it was karmically correct for the sisters to be raised in the setting they found themselves. That reorienting of perspective was oddly calming.

That daughter was the individual who would become in this life my mom.

The trouble we had early on with mom thinking I was lying had nothing to do with that earlier life—that was a karmic something that was altogether different. Once we got past that and I grew up, our relationship changed completely.

It was actually pretty funny watching us work together, which we did on and off for the rest of her life.[5] It was like the Keystone Cops with my treating her like she didn't have a brain in her head, and her treating me the same. It was always lighthearted, though. We never got mad at one another. The relationship was quite supportive, especially when it came to mom dealing with Patty and Lorraine, and when mom needed money. I could best summarize the relationship as *really good friends*.

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[If nothing else, the three lives I've talked about above were all about me living as a normal person without a hint of the Brothers' influence. That wasn't always the case. Enter Kay, and Kay and the group]

Although we still haven't gotten to the main point of this chapter, what the Brothers told me about my relationship with Kay and the group is interesting and educational. Everything is listed below:

1.) The group: In the very distant past, Kay, Cathy, Brian, Brent, Nick and I had all been healers together in the Temple of Ptah at Karnak in Luxor, Egypt. It was a place of the Brothers. Our task and duty was to go out into the surrounding countryside and serve those who were in need.[6] That service and the training we were given at that time was, I think, the basis for our being gathered together as a group in this life.[7]

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[5] We built, for instance, a huge, wood-framed cover over the back patio in the Newhall house. We built a bunch of large bookshelves together in two different houses. We hung drapes in several homes. I helped her paint several residences she owned over the years. And nearly every time she'd move, I'd be there with a truck, helping her get out and get in.

[6] We were called *the walkers of the morning*, or just *the walkers*.

[7] As possibly expected, this time around, all of us "go out into the world" from our nucleus and work as healers on some level: Brent and Brian have chiropractic licenses, though their practices are nowhere close to being typically chiropractic, and Brent has formed a company that produces healing herbal remedies; Nick is an acupuncturist; Kay and Cathy are writers who can obviously affect the thinking of those who read their work; and I work with kids . . . which doesn't seem to have a healing edge until you think about how having

2.) Kay and me—preamble: Charles Cassidy was a healer who Kay knew and who worked out of a small church in Hollywood (it was not legal to work as a medical practitioner without some kind of license, but an individual could invoke the religious right to "laying on of hands" if done under the auspices of a church, and that is how Cassidy did what he did). I went to see him when those melanomas popped up on my nose, and I'm not altogether convinced that the reason my body seems to encapsulate that notoriously flighty form of cancer now isn't due to the work he did with me then.

Skeptics would probably scoff at such things as delusional, but he definitely had juice. It was evident to me when he would put his hand on my forehead or heart area. And although he certainly didn't give a hoot for formal verifications, Thelma Moss of the UCLA Parapsychology Department checked him out quite satisfactorily in the 50's, 60's or 70's (I don't remember exactly when.) So much for background, now for the story.

One day, Kay came home absolutely ecstatic. She had found what appeared to be a very ancient, seven-tiered lamp in the Try Gift Shop. It was small and clearly from the Middle East. Although it was not a particularly attractive lamp, there was something about it that really intrigued her . . . almost as though it had been hers sometime in the distant past.

Several days later, she and Cathy went to see Cassidy. During their visit, unsolicited, he began talking about a lamp he had seen at the shop, and how strongly it had affected him. The one he had seen was broken, so he hadn't bought it, but it so stuck in his mind that he went back to get it later. By then, it had been sold. He seemed to be mourning its loss.

That next weekend, our group was talking to the Brothers and the lamp came up. What the Brothers said about it was interesting.

Kay had been, according to the Brothers, a priestess in a healing temple in Asia Minor (I can't remember the date—it was considerably before the time of Christ). The temple had seven wings to it in a kind of spoke assembly (this was not typical of temples at the time, but it was the way this one was laid out). Each wing had a priest or priestess in residence, and each wing was devoted to a particular area of healing. Kay's wing was devoted to "remembrance."

There was an herb garden attached to each wing, and in those gardens were grown herbs that were believed to be essential in the accommodation of that wing's task. Each wing additionally had a lamp that was used to burn those herbs when dried, producing smoke that would, again, aid in

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contact with someone close to the Brothers might affect young minds inwardly.

the task of healing. Kay's herb was rosemary, and the lamp that had been karmically drawn to her in the Try shop was the lamp she had used in that ancient time.

Apparently, according to the Brothers, I was her brother in that life. And apparently, it was a time of considerable upheaval in the sense that there were hordes that were sweeping down through the area. One such sweep motivated the entire temple to pick up stakes and flee.

When it was time to leave, Kay and I and a few others went to Egypt. We took what we could, the lamp included. The trip was very difficult, and upon arriving in Egypt, Kay died. I was entrusted with taking the lamp to a place that was evidently associated the Brothers. I did my duty and accomplished the task, but again it was a very difficult crossing and upon arriving at my destination, I also died.

That was one of my lives with Kay.[8]

As an aside, Cassidy was also a priest at that same temple (that was possibly where he first knew Kay), and the lamp he saw at the Try shop was the lamp associated with his wing. What was different for him was that at some point, he became disillusioned and left the temple. The lamp was his, but because he had left its service, he wasn't allowed karmically to have it now . . . even though he was doing much the same thing now as he did then . . . healing!

3.) The final life the Brothers told me about was also with Kay. It happened in Italy in Herculaneum (this was very close to the city of Pompeii in the south of Italy—I found it quite lovely and felt very comfortable when I visited there). Kay was married to the man she and our group knew in this life as Henry.[9] I was at the time the majordomo of their household.

When Henry died in the Italian life, I became, more or less, the individual in the household who took responsibility for seeing that everything ran smoothly, and for protecting the members of the house (my tendency

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[8] Small problem: Kay has long since died this time around and I am, once again, in possession of the lamp. At this point, I really don't know where I'm going to send it when I go . . .

[9] If you've read the Eastern Philosophy book, Henry was the man who was a very good friend of Kay's who, upon dying, motivated me to say, "Oh, well, you come in, you go out, no big deal." This monumentally insensitive thing to say came as a consequence of my newly formed understanding about reincarnation and my lack of experience with losing a loved one. I didn't know that Kay was taking the death hard. I knew she believed in reincarnation, so why was she so unhappy about the death? He hadn't ceased to be. He still existed. He just wasn't there, now. It was, as I said, the thinking of someone who had not had enough experience in life to understand how the child-self deals with life and loss. And what I also, obviously, really didn't know was how deep a karmic connection there was there.

today toward "doing my duty" in a very focused way was not new to that life, but I suspect it was reinforce there). I was someone, in other words, that Kay depended upon heavily.[10]

It wasn't sixty years after I died that Vesuvius (the volcano at the foot of which both Herculaneum and Pompeii sat) blew completely covering over both cities in a hundred feet (more or less) of soggy, rain-soaked ash.

It was a life, in other words, when all was very good, then shortly after, things happened that were not so good—catastrophic even.]

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[Taking shape . . .]

So where is this chapter going? It really begins to take shape with the next story.

One of the things I have come to do in my contemplations, such as they are, is to look for themes in my life, recurring patterns that exist and are fairly easy to identify with a little bit of thinking. What's more, I would expect that their existence, should they exist at all, would be evident not only in the microcosm of this life, but also in the macrocosm encompassed by my previous lives. In other words, I would expect to find patterns that are not only characteristic of what has happened to me this time around, but also patterns that are more characteristic of my path in a universal sense.

One of the patterns I've noticed this time around first showed itself when I was in high school, then college. If you will remember, in my *junior year* of high school, I was one of the wide receivers on a football team that won CIF. The team we beat in the finals was clearly the better team, but we rose to the occasion and won, anyway. We were on top of the world.

The next year, we had nearly the same team but I ripped up all the tendons and ligaments in my right shoulder during the first week of practice and was out for the next six weeks. I wasn't the only talented member of the team, but my set-back seemed to portend the general tone of the season. We did horribly from there on. Our collapse as a team was one of the most depressing experiences of my high school life. And notice, things

[10] Given this bit of background, it isn't surprising that the Brothers told Kay several months before my arrival that "there is a young man who will be coming, who has had a bit of a wild early life, but who will in all probability be of great help to you in the future as there is a karmic link there."

started out good, got GREAT, then degenerated to chaos.

So I go to college and join a fraternity. During my *junior year*, we beat the Sigma Chi's in the intramural football semi-finals (no mean feat as they still had several members who, while in high school, had been All CIF players from California, several All State players from Arizona, and still had a few baseball player who had played on ASU's National Championship Baseball team when I was a freshman), then went on to beat the Fiji's in the finals for the championship. We were on top of the world.

The next year, right at the beginning of the season, I suffered hamstring pulls in both legs that were so severe that even though I was twenty yards beyond the closest pursuer on my way to a touchdown, I had to stop dead in the middle of the field and was caught without scoring. We lost that game by six points to a team that didn't win another game all season long, and we struggled from there on.

Again, we started out good, got GREAT, then disaster.

There seemed to be a pretty direct parallel between my high school and college football experiences, with a slight Vesuvius tinge. Everything built to greatness, then at the end, everything kind of imploded.

On a little different track, when I arrived at ASU, as I pointed out in Volume 1, the fraternity I joined was *the* animal house on campus (it wasn't grungy and the guys were pretty cool, but it had that rough and tumble vibe). During the first three years I was there, we grew in stature enormously.[11] Our athletes, myself included, won the Intramural Sports competition one year, and we had huge pledge classes throughout with very unique guys in them—lots of cowboys and surfers and at least one Mafia sort from Chicago. I was engaged to a gorgeous, sexy girl who was completely in love with me (a little hard to believe, given the self-centered asshole that I was, but that was the case), and although they weren't quick to admit it, it seemed that every girl on campus wanted to be invited to our parties because they were known to be so much fun. We were, in short, the happening place in the fraternity world.

Yet by the end of my fifth year (it took me that long to get through the electrical engineering program I was in), I had lost my girl, our last year of intramurals had been a complete failure, our last two pledge classes had

[11] In my second year, one of our guys became Greek Week king, no small feat as the position was secured by getting girls from the sororities to vote for him (and getting girls to acknowledge that they thought one of our own was anything but an animal—this was an enormous accomplishment . . . though I have to say that the guy we had up was a Mormon, very handsome and one of the nicest fellows you would ever want to meet . . .).

been big but populated by kids into drugs (I talked about this in Chapter 4—we had a herd of them drop out of the pledge class throughout both years), and by the time I graduated, the house was in such bad financial straits it had to closed its doors for good.

The boom-then-bust pattern was, in other words, even showing itself in my life at ASU. I started out in a modest situation, helped build it up, enjoyed being *on top* for a while, but then in the end everything collapsed.

_____x_____

[How does Poly, my school for the last 46 years, fit into all of this?]

I love the school I've been working at for the last forty-six years. I love the students; I love the teachers; I love the administration all the way down to the maintenance folks (and by "all the way down," I don't mean to suggest that I think I'm somehow better than they—I'm talking institutional hierarchy here). As such, there is no way I would ever wish the school ill tidings. Having said that, if the arc of my life is any indication, there is a good chance something is going to happen down the line that is going to affect the school catastrophically or, if not catastrophically, at the very least monumentally. The next few sections are going to talk about that possibility. I'll start with some history, then go speculating.

_____x_____

[The Poly of old.]

In 2017, I had a conversation with a Poly parent who was also a professor at Caltech. I'm not going to identify him or his department because I don't want to get him into trouble, but the conversation was telling. As shocking as this is going to sound at first blush, what he said was that there were a lot of very good universities out there, universities like Harvard, from which his department wouldn't even consider graduate school applicants (though I can't imagine they wouldn't make exceptions—the prodigy or the undergrad who was known to and sponsored by one of Harvard's Nobel laureates, for instance).

I asked him why. He said that most universities these days are so worried about keeping their students happy, about pampering them, that they (Caltech) had found *from experience* that undergraduates coming from that kind of environment simply couldn't handle the expectations

that exist at a pressure-cooker research institution like Caltech.

He said Ohio State (as I remember, and to my considerable surprise) *was* a university they (again, Caltech) would consider applicants from. Apparently, it was a university that provided an excellent education but also banged its students up pressure-wise without much thought for their feelings. Consequently, they did a pretty good job of preparing students for the outside world and big-time research.[12]

When I first got to Poly, it was a decent school. It had always had good students, it had always had a good reputation in the Pasadena area, but it wasn't known nationally and at the time it had some teachers that weren't all that great (in fact, if you will remember, my first year was the first year after *the great purge*).

From the 1980's on, the faculty that was there (myself included) worked hard to make the school outstanding (and so, with a few exceptions, did the Administration). We weren't doing it consciously, it was just happening.

The point is that from the early-1980's into the 2010's, Poly was not a typical high school, it was more of an Ohio State-type school. We provided our students with a crackerjack education, but we did it without pampering them. It was a stressful place, but our students came out prepared to deal with anything the college-of-their-choice might throw at them. I know this because I had alums come back year after year to tell me not only how well prepared they were for college, but how easy college was in comparison to what they had encountered at Poly. They also said how spectacularly useful Poly had been in teaching them how to prioritize.

The implication of that last point was that there was never time enough to do everything that was being asked of them while here, so they had to become good at time-management and determining what was and wasn't important to do (I remember one student saying that his roommate at college had never learned how to do this and, as a consequence, was constantly, massively stressed because he couldn't let go of stuff he didn't

[12] Ohio State has since had its reputation badly tarnished with the revelation of sexual abuse of hundreds of athletes between 1978 and 1998 by the school's athletic physician (Richard Strauss), all of which the school was at least peripherally aware of as early as 1979 (that was when the first complaint came in *and was ignored*, presumably to protect the institution). This was all chronicled in the 2024 documentary *Surviving Ohio State*. I didn't find out about any of this until that documentary, so to be clear, when I refer to "an Ohio State kind of school," I'm talking about their academic program. Clearly, what they allowed to happen to their athletes was a disgrace.

have time to take care of).[13]

Poly was, in the old days, a pressure cooker, but it was a place from which universities could be sure they were getting students who were really ready for the academic life of college. I think this was part of why the Washington Post identified Poly in the top ten high schools in the nation on the basis of *rigor* in 2013 and 2014.

So why am I talking about this?

There were very few high schools in our nation at the time at the level of Poly, at least as it stood at the beginning of the 2010's. We were not unique, but we were close. Remember how I summarized the school in the *Pranks I Have Known, Part 2* chapter (this being in truncated version of that summary):

—Wonderful arts programs with thespians, painters, pen and ink artists, sculptures, potters, wood workers and enamellers.
—Enviable student-exchange programs all over the world.
—Great AP test scores in all subjects.
—The occasional, nationally recognized writer.
—CIF athletic championships across the board.
—Wall to wall Community Outreach participation.
—Tons of National Merit honorees.
—Outstanding teachers in every department.
—Serious good-will between the students and teachers (and among administrators, teachers and students).
—And national recognition of the school's overall academic rigor.

The school was, in short, a remarkable place.

_____x_____

[13] As an aside, the feeling I sometimes get when I listen to educational pundits is that they believe that it is paramount for students to have a well-rounded life, which I kind of agree with. Having said that, though, if I had a child I was sending to a private school for an education, and I was spending a ton of money to have them there, my attitude would be that my child's *primary job* should be to educate themselves. Being social would be nice, and having a boyfriend or girlfriend would be nice, and having down-time during the weekend to do whatever they wanted would be nice, and doing sports would be nice, and getting nine hours of sleep would be nice, but in my head their PRIMARY JOB would be to educate themselves. During this "Ohio State" period of Poly's history, that attitude was quite evident amongst most-all the students (even our athletes). Nowadays, that mindset exists, but it isn't the alpha and the omega as before.

[So?]

Reiterating what I said a few sections above, there appears to be a pattern present in my life story, not only in the minutia of this lifetime but also present in at least some of my previous lives. I seem to find myself in situations that are OK, I help to make things better, there is a period of time during which I and the institutions I am associated with are on top of the world, then as I'm leaving the scene (or within a few years after I've left) serious changes happen.

This kind of makes me look like the Typhoid Mary of natural disasters . . . except I'm obviously not. My presence isn't what's causing the calamities (he said defensively). It's just that my karma seems to have me throwing my two cents into the mix shortly before "the blast," kind of like a herald . . . except without trumpets and a whole lot less important in the grand scheme of things (who has, after all, ever heard of me outside the few I've taught at Polytechnic School?).

Which brings us back to Polytechnic School, the cornerstone of my professional life (not to mention a big part of my work for the Brothers) and a place for which I have a deep affection. The fly in the ointment, and the one reason *I almost didn't write this chapter*, was that I just couldn't see how a place as amazing as Poly could possibly fall into this pattern.

How could a place like Poly *fail* in such a catastrophic way (and let's face it, you'd kind of expect it would if this pattern was really a part of my karmic arc)? As of the early 2000's when I first began writing this chapter, not only couldn't I see *how* that could happen, I really, really, really didn't WANT to see it happen (. . . and I still don't).

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[Poly "right now."]

I'm 70 years old (I originally wrote this part in 2018) and I'm about to have a hip replacement (bone on bone—during the senior trip at the Kern River this year, I was hobbling around like a little, old man). As is always the case, I may come out of it OK, or I may die. The point is, one way or the other, my time at Poly is nearing its end (or, at least, within a few years of the end). So what is the current state of the school?

It seems that karma has been moving subtly over the last several years, and we all know how that goes. The school is seeing changes. Everything that has been done has seemed reasonable at the time (that *is* the

way karma moves), but the school seems to be slowly transiting from an Ohio State-kind of school to a Harvard-kind of school, and that is distressing . . . sort of (cause who would want to be compared to Harvard, for God sake). Nobody is doing anything wrong (as I said). It's just happening.

To understand the how and why, more history is needed. It all began with the English department.[14]

Since the beginning, the English department's primarily responsibility has been to teach students how to write well. Students also spend time reading and analyzing literary works, but the department's real service to Poly students is in making sure they can communicate eloquently with the written word.

For years, this made life for the English teachers a living hell. When I first arrived at Poly, an essay was assigned and due *every week*. The norm at the time was four classes of fifteen kids per teacher. That meant each English teacher had upwards of *sixty essays* to read and grade weekly. I remember Beverly Boyd, a good friend and excellent English teacher, quitting her job because all she did with her evenings and weekends was read and grade essays. According to her, she could never catch up . . .

Traditionally, the semester exam for English was comprised of three hours of essay writing. That meant that during that period, the English folks were charged with the unenviable task of reading and grading three continuous hours of essay work *from every student in their four classes*. That, before they could give students their semester (or year-end) grade.

During exam week, the English folks always gave their exam first on the Friday before "exam week" (there was only one exam given per day). That way, they would have as much time as possible to do their reading and grading before class grades were due a week-and-a-half later. The other disciplines gave their exams depended upon where they fell in the rotating schedule we used (one year, Math might do their tests on Monday with History doing theirs on Tuesday, the next year Math would do theirs on Tuesday with History doing theirs on Wednesday, etc.).

For years, the English folks talked about trying to find another way to assess students during the semester exam (this, out of self-preservation). What pushed them over the edge was when Jamie Nielson, then Upper School Head, decided to make the English folks participate in the exam rotation (this was due to people complaining about time equity and how it

[14] And please don't take what you are about to read as a suggestion that the English department of 2025 is not doing a good job with our students, or that the teachers are not just as stressed as they used to be. They are stressed. It's just a different kind of stress.

wasn't fair that the English folks always got to go first—the history folks, for instance, had a lot of reading to do, also . . . still . . .).

The first year they were put in the pool, they found themselves set up to give their exam on *the last day of exam week* (a Thursday), which would have given them nearly one week LESS TIME to do their grading. Their solution was to simply NOT GIVE AN EXAM that year, which kind of broke the mold. From then on, they went freeform.

Now they give what are known as *alternate assessments* (example: take an hour to watch a film, then write a critique).

Why am I pointing all of this out? Because up until the breaking point, semester exams had the academic zing one might expect of an Ohio State kind of school. Alternate assessments, by their very nature, are not generally that kind of thing. This is not saying they are bad or lacking in educational value. It is to say that they are generally more about fun, and they are certainly easier than full-blown exams that cover an entire semester's worth of stuff (this, especially true in content-heavy disciplines like the sciences).

The next thing that happened that significantly changed the academic culture of the school had to do with a change in our daily schedule. That all played out with the changing of our school's head.

Debbie Reed was the Head of School from 2002 to 2014. I expect she will be primarily remembered for the work she did in completely revamping the physical plant at Poly.[15] Her administration raised somewhere around $85,000,000 for the building of a new Administration building complex and classrooms on the north campus (and some renovations on the south campus), and (I think) an additional $45,000,000 for still more new buildings and renovations on the south campus.

When Debbie retired, John Bracker (pronounced Brocker) was hired as the new School Head in 2014. John was a good-hearted soul who, I think, was brought in because he was someone who was very much interested in making life good for students. Right around the time he arrived, we had an appraisal of our daily schedule.

What came out of that was a somewhat revolutionary approach to the daily schedule in the sense that instead of having a five-day week, it was based on a six-day rotation. That meant every six days, the schedule

[15] Though I will remember her as the School Head who resisted pressure from all sides and didn't fire me after I wrote that letter to students trying to convince casual science students to *not* take AP Physics. You know, the letter that got me banned from teaching the AP class.

would start over again.

There were all sorts of nice things that came out of doing this. It spread things out, giving students time to do stuff they hadn't had time in the past to easily do (there was time for clubs to meet, for instance, and we had expanded morning meetings a few times a week, and the Advisee program was expanded—nice stuff like that.)

There were some down sides to it, though. First and foremost, homework time was cut by between *half* and *a third*, depending upon what year you were (frosh, sophomore, etc.) and the discipline you happened to be looking at. The consequence of that was that our sophomore AP chemistry students were supposed to have no more than 30 minutes of homework per night, four out of the six nights in the rotation. Imagine learning college level chemistry under that constraint. What's more, the freshman English program was so stressed by the move that students ended up leaving the freshman program with the ability to write good paragraphs, whereas in yesteryear, they would have ended up leaving with the ability to write good, *whole essays*.

This time constraint also generated a fair amount of stress and irritation amongst at least some of the faculty.[16] It meant that faculty were still trying to educate the kids to the same standards and level Poly faculty had always achieved during the Ohio-state period, but now they were doing it more or less with their hands tied behind their back.[17]

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[16] The homework decision, for instance, was made by administrators with nary a word of input from the teachers (it was passed down kind of the way noblemen in old England used to pass edicts down to the peasants). I'm sure some administrative guru wrote something somewhere about how to manage faculty in situations like this, but in any case, a serious amount of good will was burned between the administration and faculty as a consequence. As for rationales, some were reasonable, some not: it was maintained that students needed to have more free time to spend with their families, and to do stuff outside of school (both of which I personally would appreciate if I was a kid, unless I was a teenager who didn't want anything to do with my parents and/or was an academically precocious teenager who perceived my *main task in life* as educating myself . . . you know, an Ohio State kind of kid). Another was that students with less homework would get more sleep, which has been shown to be very important on the health front (though the suggested nine hours a night seems iffy to me). Having said that, some of the other rationales used to justify this move seemed pretty thin (we had one speaker come to Poly from "the Stanford area" and talk to us a few years back about current trends in education, and one of her more remarkable "facts" was that recent research had shown that there was no correlation between doing homework and doing well on tests . . . which is baloney and not something I would have let pass if she hadn't immediately moved on to a little less ludicrous claim without giving anyone in the audience a chance to dissent . . .).

[17] One of the more irritating responses you sometimes get to situations like this is, "If the teachers were any good, they'd make things work no matter what the situation." That's

Another change that was made, with the support of most of the faculty, was the making of semester finals into a *two-a-day affair*. This change had been floated in a faculty meeting fifteen years earlier. The authors then suggested that we make the exams only two-hours long instead of three-hours long to make up for the doubling up. You'd think this would play directly into the Ohio State model, what with the demand for excellence coupled with the increased pressure of two-a-day testing. It didn't..

How so? The presence of *alternate assessments*. Because the administration had been quietly encouraging teachers to use alternate assessments in place of standard, classically rigorous, semester exams (remember the English department's problem, and its solution), and because a lot of teachers had taken the administration up on that, the two-tests-a-day change was doable. After all, one test and one alternate assessment in a day shouldn't be too much for anyone to deal with, or so you'd think (this, assuming a kid didn't have two classic exams in one day—then the kid was screwed).

The point is that with *alternate assessments* and the feeling amongst some faculty that they really should be giving alternate assessments instead of semester-inclusive tests in deference to student's well-being, we had another step back from the Ohio-state model to the softer, kinder, gentler Harvard-model . . . which wasn't bad, it was just slowly edging us away from the old, hard-core educational style that had made Poly somewhat unique and nationally known.

There were little semester-exam travails along the way during this period. On *day-one* of exam week, should we have A-period exams in the morning and B-period exams in the afternoon, then on *day-two* have C-period exams in the morning and D-period exams in the afternoon, etc., or should we have all the sciences on one day, then all the histories on another day, etc.?[18] To my great amusement, that problem was pretty much extin-

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a load of horseshit. An administration can easily engineer an environment in which very good teachers fail. I'm not suggesting Poly's administrators have done this, but you can create a situation in which doing one's job becomes more and more difficult, and when that happens, you start seeing good teacher becoming more and more frustrated.

[18] The first option worked best for alternate assessments in which the teacher needed to be present in the class (this couldn't happen if all a teachers periods were meeting at the same time on the same day). It also made life easier for administrators who had to schedule exams for students taking, say, two languages. The second option was better for courses that had multiple classes and a teacher who wanted to give a *classical* exam. Being able to give everyone the same exam at the same time eliminates the need to make up several exams to guard against cheating, and eliminates the inequity that comes when one class gets the

guished when the school pulled another maneuver (again with the faculty's blessing, more or less) that made the problem moot.

At the time, our first semester started toward the end of August and finished toward the end of January. That meant students would go off for Winter Break (two weeks over the Christmas holiday), then come back for two weeks of classes (give or take) before finishing up with exams.

Because having semester exams two weeks after we got back from Winter break was deemed by the administration (egged on by the kids, some parents and some faculty) to be "inauthentic," where "inauthentic" was meant to mean "not a real, true, carefree vacation because sometime after the vacation, semester exams would happen, so some of the little darlings, as Eric Stelter used to call his charges, would be stressed motivating them to study some during that two-week vacation," the school decided to make the semester exam/assessment period BEFORE the Winter Break . . . which is to say, about seven-eighths of the way through the semester, not at semester's end. (I know I'm sounding upset about this—I'm not . . . this is all stuff I would have loved to have had done for me when I was young, though I wasn't a very devoted student so maybe not a good endorsement.)

In other words, if you were teaching a class that really had a *full semester's* worth of material to it, like the Classical Mechanics section that happened in both the Honors and AP Physics courses, you couldn't give a true semester exam as a culminating experience at the end of that study period because the time given to you by the school to do that culminating assessment—exam week—was not *at* the end of the semester.[19]

As I said, this did a nice job of eliminating the "do we have assessments by *period* or *discipline*" problem, as it no longer mattered. Whatever the physics classes did during the assessment period, it was no longer going to be a standard, classic overview of the knowledge accumulated during the *entire* semester. It was going to be something else.[20]

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hardest of the multiple exams (and just so you know, by different exams, we aren't talking *the same exam* with different numbers—that never works if you are dealing with smart kids, which is what we have) There were, in other words, pros and cons for each model.

[19] For the record, when the holidays arrive, the AP class still has *Gravitation* and *Vibratory Motion* to cover—both huge topics on AP tests, and the Honors class still has *Wave Motion* and *Vibratory Motion* to cover. Once those topics are done, both classes go into an entirely different area of physics, *electricity and magnetism*.

[20] To be fair, I should probably mention that I talked to a physics-teacher friend in Texas about having exams before Winter Break, and she told me her school district did it that same way. Apparently, what we were doing wasn't particularly exotic when judged by the action of at least some school districts in the country.

[Back at the ranch}

This brings us back to the overriding theme of this chapter.

What we had at the beginning of my tenure at Poly was a pretty good school. It rose to considerable heights, Ohio State heights, in its ability to produce large numbers of students who were far from pampered but were also, as a consequence, serious scholars who were definitely ready for anything that might come down the pike as far as college goes—really elite students. We were on top, NATIONALLY, and yet in just the last few years, we have begun to make seismic changes in our approach to education. As best I can tell, the changes have not caused a Vesuvian event. What's more, in place of the old ways we now have many good and worthwhile programs (I'm thinking of the Global Initiatives Program that has, over the last fifteen years, created trips for groups of students to Italy, France, Taiwan, Costa Rica, Cambodia, South Africa, Argentina, Beijing, Cuba, Peru, Nicaragua, Mexico City, Vietnam, Baja California, Dominican Republic, Iceland, Finland and Kazakhstan; also, as of 2025, both our Moot Court and Debate teams have blossomed and are now nationally ranked). Having said that, though, the school isn't what it used to be.[21]

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[As an aside, what have I done about all of this?}

The Brothers told us an interesting story during one of our meetings. There was, evidently, a very kindly Christian minister who whole-heartedly believed in the tenets of Christianity as they were understood during his time. He was also a scholar, and he wrote voluminously.

When he died, he went into devachan (the compensatory state, somewhat heaven-like, in which one is allowed to play out the best of one's aspirations). So although he realized death was not what he had expected, he found himself re-living the happiest times of his life, the times he was ministering to his flock.

One day, as he sat in his den surrounded by a wall of books he him-

[21] I should point out that having an Ohio State mindset is excellent if one's goal is to prepare students for the rigors of college, but not very good if one's goal is to prepare students for the intricacies of life (though I think the E.Phil class was pretty useful in that regard even though I haven't done it in years). I believe the people in charge see the change we've made as being for the good, and I kind of agree with them.

self had written, it dawned on him how terribly wrong he had been in his estimation of the way things are, and how badly he had led his flock astray with all he had so forcefully said and written concerning Christ and God and Christianity and sin and salvation. His limited view was so . . . well . . . limited, and he had swayed and affected so many with it.

It wasn't damning as he was a basically a good man, but he had unintentionally done a lot of damage, and it was a very uncomfortable revelation because he was ultimately responsible for what he had put in motion while in a body.

I do fight vigorously for what I think is best for my students, but if things don't work out (which is often), there are two things that comfort and calm me. The first is the fact that everyone has their own karmic path to tread. If things are going to be harder for my students due to some policy the department or school puts forth (that I can't head off), I know that "something" must be karmically correct for the students involved.

The other thing that calms me is the story I just recounted. I can never know if my view on things is right for all the Beings who will be affected. I could, in other words, *be wrong* in my estimation of the situation. With all that has happened at Poly over the last several years, I have grumbled here and there to the new administration (who are very good people and really want Poly to succeed), but I remember that Christian minister in devachan surrounded by all the books he had written that were so very, very wrong, and I stifle my tendency to be irritated or bitter about things that are changing in ways I would not prefer. My being adamant about anything, in other words, at least when I am in my right mind, is a bad idea.

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[Where might this take us if my arc is to have a light touch on the school?}

For the dozenth time, I really hope Poly continues to thrive, but in the off-chance it does find itself in trouble, how might that come about?

College problems: One weatherable problem Poly might run into has to do with college admissions. Schools like Poly have a certain amount of institutional inertia in the sense that colleges know what the school is all about (remember the Washington Post ranking). Sooner or later, though, there is at least a chance that someone at the university level is going to notice that at least some of the kids that are coming out of our school do not have the academic edge our previous graduates had because they sim-

ply haven't been pushed the way our alums had been pushed. It will still (most probably) be standardized tests and teacher recommendations that get kids into colleges, but if reputation matters, we may have a problem. Not a Vesuvian problem, but possibly not an inconsequential one, either.

Administration problems: Our administrators right now are excellent, but we have had some that weren't (in fact, one was so bad, nearly all the retirement-eligible teachers quit one year). It is not outside the realm of possibility that we might find ourselves saddled with someone who is not a particularly evolved soul, and if that happens, we could have a problem.

Parent problems: As of 2014, I really couldn't see how Poly could possibly change in a way that might threaten its existence down the line. But over the last few years, I've begun to get inklings. What our administration is trying to do is to make Poly into a place that will not damage its student in life, that will, in fact, help its students beyond college. I have absolutely no problem with that. But parents are paying a bundle of money to go to this school (the average tuition between the four major private schools in the Pasadena area as of 2017 was $35,000 a year, and as of the 2019-20 school year, the Upper School tuition at Poly will be a hair under $40,000). When the changes I've been talking about were being made, I know there were parents who were very unhappy with the direction in which the school was going (during that first year when homework time was diminished, my *Back to School Night* meeting with Advisee parents made that crystal clear).

Parents send their kids to Poly for three reasons (as far as I can see). There is a certain amount of prestige associated with going to a private school like Poly (this will probably never change); the school is a safe place (no gangs and the kids are relatively supportive of one another); and the education provided is seen as excellent in the sense that, though it does not insure this, it definitely provides a fairly strong pathway toward admission to the college of one's choice.

As to that last point, in 2019-20 year, 86% of our students were accepted to at least one college early action, which is to say, before the end of the first semester of their senior year. As long as this trend continues, parents should be fairly happy with the school. If the trend begins to move downward, though, and if parents begin to get the feeling their kids aren't getting as good an education at Poly as they might get at, say, Flintridge Prep in La Canada, then the school could have problems attracting really good students. I don't know if something like that could happen, but

thirty-minutes of homework per night for AP Chem is definitely a worry.[22]

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[More serious possibilities . . .]

I wrote about this in Chapter 4 of Volume 1, but what caused my fraternity's demise was a financial crisis that came as a consequence of a mass exodus of pledges over a two-year period. To break-even, our house needed 49 of its 55 beds filled. With pledge defections happening as they did (again, refer back to Chapter 4), the house went into the red during the first year and couldn't survive a second year of red ink *even though everything else about the house was still going great guns*.

Poly has a sound financial footing with a good endowment, so you wouldn't expect any disasters to be financially based. But that was in the old world. As I am writing this (it's July 28, 2020), the *novel corona virus* (COVID-19) has been raising hell for the last five month. It has completely wiped out hundreds-of-thousands of businesses around the world, tens-of-thousands in the United States. World-wide, a little under 8,000,000 people have been infected with around 660,000 dying, 150,00 of them have been in the U.S. With the shutdowns that have ensued, there are millions and millions and millions of breadwinners both world-wide and in the U.S. who have lost their jobs. At one point, the U.S. had 40,000,000 people apply for unemployment benefits with, presumably, an additional, unknown but possibly astronomical number needing governmental help but not being eligible to get it.

This is the kind of financial event that could so devastate Poly families that their only recourse would be to take their kids out of Poly. And if enough parents had to do that, Poly as an institution could be in trouble.[23]

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[22] I've already said this, but I want to say it again. If it is karmically correct for the school to go through some kind of Vesuvian experience, it will NOT happen because anyone did anything wrong. It will happen naturally because it was time for it to happen, given the karmic necessities of the Beings involved at the time.

[23] In fact (this being added a bit later), Poly was able to muster financial support for families in need during the pandemic, so this didn't happen. But it could have, and if stuff like this continues to occur, it may. We are, if you will remember, in the Kali Yuga. This is a time of change and testing.

And this is an additional, additional note: It's April of 2025 and President Trump has just instituted tariffs on almost all the countries of the world (including the Heard and McDonald islands which are populated solely by penguins, possibly giving you some idea as to how well thought out Trump's moves have been). As a consequence, over a two-day

Another possibility is some kind of natural disaster (I'm writing this paragraph in January of 2025). When I think of natural disasters in Southern California, I think of earthquakes. And indeed, we could have a magnitude 8.5 earthquake close enough to Pasadena to make whole sections of homes (and schools) unsafe for occupancy. But the disaster we just experienced was not an earthquake, it was a fire, the Eaton Canyon fire. It never passed through my mind that something like a fire could happen in a densely populated urban area like Pasadena where I live, but the Eaton Canyon fire did just that burning 12,000 structures in Pasadena and neighboring Altadena and La Canada (the photo is an aerial view of the devastation taken by Robert Gauthier from the *L.A. Times*). If the fire had moved a mile or two south instead of westward, which it could have done if the 60 to 80 mph winds that drove it had been in the wrong direction, Poly could have burned to the ground . . . and then what?

Poly was lucky, but this happened to, maybe, six schools in the Altadena area (as I put in a footnote elsewhere, the wife of one of the teachers at Poly worked at a school in Altadena that burned to the ground with 120 of the 200 families enrolled in the school losing their homes to the fire . . . this for them was a pretty devastating event).

And lastly, all of these scenarios are *old world*. The *new world* threat is that AI strangles modern education as we know it, and the schools of tomorrow turn out to be nothing at all like the schools of today.

The bottom line for Poly is this: If all hell is going to be break loose down the line, it will happen. It hasn't happened yet, though, and I'm hoping it won't (as I've said), but there are all sorts of avenues that might take it there. I guess time will tell.[24]

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period, the Stock Market lost 10% of its value, or $6,000,000,000,000 (that's $6 trillion). I don't know what Poly's endowment is, but I suspect it is housed in the stock market. If that's the case, it just took a serious hit and money we thought we'd have access to is, at least at this point in time, no more.

[24] And once again, as I've said before, this is not something to stew over. If it's time for something to occur, it will happen naturally. It won't be anyone's fault. It will just be time for change to present itself, and karma will see to it that it does. Also, it might not happen

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[Leaving Poly and scaling up my "the end is near" motif . . .]

I've already devoted a chapter to talking about the state of affairs in Trump's America, but I'm going to point out one more thing. The U.S. has been a world power for quite a while. I didn't have a lot to do with the making of America, but I have had a nice life as an American citizen, and I can certainly see things devolve under the hand of Donald Trump and the Congressional toadies who support him, all of which would be right in line with the karmic trend I seem to be surfing.

The point is, whether Trump is re-elected in 2020 or not (I'm writing this before the election), any future country that signs a trade deal, or a treaty, or makes any kind of agreement with the United States, has to have in the back of its mind the worry that at some point down the line, the ever-so-easily manipulated American voter will install a sociopath, or a psychopath, or a narcissist, or a pathological liar, or a charismatic into the White House, and all the agreements and good-will that had been forged from years and years of interaction and diplomacy will mean absolutely nothing because that individual will have the power to indiscriminately break that deal or treaty or agreement because a precedent has been set to do just that.

Nobody from here on out, in other words, will be able to trust us, because nobody from here on out will know for sure that in a few years, a nut-job isn't going to get elected to the Presidency and decide to undo everything on a whim . . . because that's exactly what our current "burn-it-down" President has done.

So as far as *making America great again* goes, at least on an international level, it does seem that karma has moved to tear things down . . . and our president has obliged nicely.

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[An insert after the 2024 presidential election written in February, 2025.]

Chaos descending, and a few more words about Trump after his 2024 election win.

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tomorrow. Remember, it took 60-years after I'd died for Vesuvius to blow.

When I think of rampaging hordes, I think about the lifetime Kay and I had at the healing temple (the life with the lamp), or the Huns in the area of modern-day Kazakhstan between the 4th and 6th centuries AD raiding with such intensity that it hastened the collapse of the Roman Empire. I don't think of white-collar hordes, yet that is what we have happening right now in the United States.

I wrote earlier about the Supreme Court's rulings that shields a President from prosecution should he or she break the law while in office. That ruling allows a Presidents to act with impunity, essentially disregarding any law he or she may decide is in his or her way (this doesn't mean lawsuits can't be brought to try to stop a President's actions, it just means no personal consequences will come to a President who has acted inappropriately). Trump, with his re-election, has over the last two weeks (this is being written on February, 6, 2025) given Elon Musk, the richest man in the world with an estimated wealth of four-hundred billion, the power to completely gut the Federal Agencies he and Trump don't like. That includes the Federal Aeronautics Administration (FAA), the Federal Bureau of Investigation (FBI), the Treasury Department, the Education Department, the Consumer Financial Protection Bureau, the Office of Environmental Protection in the Environmental Protection Agency (EPA) and the U.S. Agency for International Development (USAID). He/they would also like to get rid of the Federal Emergency Management Agency (FEMA). All mechanisms for accountability are being trashed with members of Musk's team, some barely 20 years of age, having access to critical computer systems in which they can now install "outside code" (though there are currently lawsuits trying to stop them from doing that).[25] Musk's actions are all being done under the guise of making the government more efficient and saving money, but it's really the first steps in destroying the country as it has existed for the last two-hundred and forty-eight years, both internally and in the eyes of the world.

Four additional examples: First, the move against USAID. USAID is

[25] It's April of 2025, and there is a whistleblower from the National Labor Relations Board who is currently talking to Congress (as though that's going to do any good) about a security breach that Elon Musk's adolescent hackers apparently generated (I heard about this on the April 17, 2025 PBS NewsHour show). During the breach, an enormous amount of sensitive data was downloaded (presumably by Musk's crowd), then the sign-in document that keeps track of who has done what in the system was deleted. Fifteen minutes after the breach, Russian hackers entered that same system using authentications and passwords. I don't think the whistle blower directly accused Musk's people of having provided Russia with the sign-in information, but Musk had visited Putin just a few weeks earlier and the coincidence does seem a little hard to ignore.

charged with extending assistance to countries recovering from disasters, trying to escape poverty and trying to engage in democratic reform. It provides food to countries whose population is starving, has sponsored efforts to end polio, supports organizations that provide HIV and malaria treatment, and has supported programs designed to restrict viral spreads that cause pandemics. It is, in short, the government's overseas *aid agency*. It is the kind of agency you would expect to exist in an uber-rich country, which the U.S. is, that isn't totally self-involved. Musk has moved to completely collapse the agency (he is quoted as calling it "a criminal enterprise") by firing or putting on leave the civil servants who man the department, and by completely removing all support even to U.S. citizens working for the agency in dangerous foreign nations.[26] None of this is legal as the President does not have the power to interdict money already allocated by Congress, but Trump and Musk are doing it anyway generating fear and chaos throughout.

Second, the role of Inspectors Generals in federal agencies is to conduct independent audits and investigations to detect and prevent fraud, waste and abuse. They are, in short, watchdogs. Within the first week in office, Trump fired 17 of them, effectively leaving those agencies completely vulnerable to any underhanded thing he (Trump) might order done.

Third is the Trump Administration's attempt to identify all of the FBI agents who had anything to do with investigations into the January 6 insurrection or any of the multiple indictments of Trump (remember, only one of those cases got through the courts—in that one case he was found guilty of 34 felony counts). These number around four-thousand. If that information is acquired, all those agents will be fired (when asked, Trump said he didn't know anything about this, which is a bold-faced lie, but that surely only "corrupt" agents would likely be fired . . . he cleverly didn't define what he meant by "corrupt," but it's a sure bet his minions will define it as "doing something deemed anti-Trump").

And lastly, one of the first things Trump did as President was to sign

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[26] A late note written on June 6, 2025: It is estimated that Trumps defunding of USAID, WHO (the World Health Organizatino) and UNICEF, organizations at the forefront of the global fight against AIDS, Malaria, Tuberculosis and "children's health issues," will be the cause of 103 deaths worldwide per hour. Using the impact counter (impactcounter.com) generated by Brooke Nichols of Boston University, that comes to 103,614 adults and 216,204 children deaths as of this date. These are preventable deaths, which means Trump has some serious blood on his hands. To the suggestion that Trump's cuts to Medicare would have a similar effect, Republican Representative Joni Ernst from Iowa took the *let them eat cake* award with the observation, "We're all going to die sometime." Nicely callous, and the Dark Side has to be jubilant.

an Executive Order that paused all federal expenditures. That meant any organization with a grant or federal aid abruptly found itself without expected and depended upon funds. The memo was quickly rescinded, but its very presence caused widespread panic, which I suspect was the original intent. Since then, there have been sporadic, never-before-experienced "glitches" in the payment systems that provide money to Head Start programs and community health care centers (all designed to help the poor). This has had the desired effect. People running those organization are being let in on the fact that the money they depend upon to do their job can be turned off at the drop of the hat, a kind of psychological warfare designed to magnify stress and seed chaos in the ranks.[27]

Our news agencies are just beginning to realize that Trump's people aren't doing any of these things to make things better, they are doing them to rip into the country (remember, the Brothers said that the United States would never fall from without; that if it fell, it would be from with).[28]

And if all I've said isn't enough to convince you of the darkness of his actions, what really gave it away was Trump's focused targeting of any effort to curb *climate change*. He is doing things that will exacerbate the climate problem . . . and that can only be done by someone who is trying to tear up not only our country, but also the world. Although he certainly wouldn't spin it this way, this is dark, dark, dark, and certainly has the backing of the Dark Brothers.

Oh, and two last things. First, just two days ago (it's February 6, 2025 as I write this), with Israel's Prime Minister Netanyahu standing next to him with a decided smirk on his face, President Trump held a news

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[27] Russell Vought, one of the main authors of Project 2025, the playbook for Trump's second term and Trumps pick for White House Budget Director, even stated on camera before the election that his (and Trump's) intent was to demonize Civil Service employees in the EPA and cause them as much pain, suffering and trauma as possible.

[28] On Friday, Feb 21, David Brooks, a columnist for the New York Times and the conservative (Republican) commentator on the PBS NewsHour, finally put into words what I was hoping someone would sooner or later say. He said (loose translation): Trump has a mafioso mindset. He sees the world as a *survival of the fittest* affair. The folks who voted for him did so for good reason. In comparing high school educated people (his supporters) to college educated people, Brooks said: they die eight years earlier; they have kids who in the sixth grade are four grade-levels behind; they are much more likely to say they are lonely; and they are more likely to live in devastated communities without social capital. Having been elected by these people, Trump's administration, being comprised almost wholly of Ivy League graduates, is addressing none of these concerns, instead focusing on culture war issues and the tearing down of any institution *the left* is thought to control. And that says nothing about what he is doing to the U.S. internationally.

conference at which he announced that the United States would take over Gaza, expel the two million Palestinians who live there (resettling them in Egypt and Jordan), clear the border-to-border devastation wrought by Israel's relentless bombing over the last year-and-a-half, and rebuild the area into "the Riviera of the Middle East" (owned by America). He even said during that briefing, "Everyone I've spoken to loves the idea."

As a monument to how other nations currently view us (and Trump), within a day Egypt, Jordan, Turkey, the United Kingdom, Germany, France, Spain, Australia, Ireland, Brazil, Russia and China all highlighted the insanity of the idea, and rejected it.[29]

And second, a week ago, Trump preemptively, publicly accepting all of Russia's demands for the end of its war with Ukraine *without bothering to consult Ukrainian officials*, then demanded that Ukraine sign over half of its mineral rights in return for the U.S. not abandoning it altogether.[30]

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[29] This wasn't the only crazy-ass thing Trump announced in the way of U.S. international aggression. He also said he wants to take back the Panama Canal, using force if necessary; he wants to annex Greenland from Denmark; and he wants to make Canada into the fifty-first state. With Putin likely to come away with some part of Ukraine due to the war he started there (at the very least, holding on to the Crimea), it seems Trump sees a future for America doing much the same kind of thing in its own right.

[30] With respect to this demand, Zelensky, the president of Ukraine, was summoned to the White House on February 28, 2025 to "discuss" the situation. The meeting was televised. Vice President Vance began the meeting by lecturing Zelensky. When Zelensky tried to point out that Russia couldn't be trusted, and that they were killing his people, Trump jumped in and a shouting match ensued. The next day on the PBS NewsHour, two different commentators talked about the situation.

The first was Timothy Snyder, a renowned scholar and professor of history at Yale. When asked about "the spectacle in the Oval Office" (these being the moderator's words) the previous day, he said, "We are trying to end the war between Ukraine and Russia, but all the president has done is make concessions to Russian, the aggressor. What we've done now is bring the president of Ukraine to the White House and try to humiliate him. We've created the situation in which we've favored the aggressor and weakened the defender. You can't get to peace using that logic."

After the melee, the White House put out a communique saying that President Trump and V.P. Vance had stood up for American interests. Snyder said this about that: "You are setting a pretty low bar for yourself if you think that yelling across the room at your guest is a show of strength. Strategically, what the United States is doing is trading a set of western alliances for an alliance with Russia. The main way Russia engages with us is in stealing our technology and hacking into our infrastructure. The Russian economy is smaller than Canada's, but we are nevertheless going to trade eighty-years of alliance with reliable partners that are fifteen, sixteen, seventeen times bigger than Russia as an economy, for an alliance with Russia. There is no way that is a show of strength in any other way than some kind of distant psychological sense that I don't understand."

The moderator then talked about the European response to the meeting. To that Snyder said: "In domestic politics, Trump has gone a long way by bullying people and by bluffing.

So going back to my karmic arc, it would seem that toward the end of my life, the United States may completely fall apart as a democracy and devolve into a very powerful, slightly deranged autocracy, and the world may become a more dangerous place for it.[31]

Let's hear it for personal karmic arcs . . .

That, when it comes to allies, only works negatively. They just come to the conclusion we can't be trusted. When it comes to our enemies, like Russian and China, or countries for which we are in a rivalry, it doesn't work at all. It has no effect on them because they are not afraid of Trump until he can martial some kind of foreign policy instrument, which he doesn't seem able to do with respect to them. So where we are now is that we have created a world very quickly, in four or five weeks, in which the level of American strength is incomparably lower than it was in late 2024, and in which it is hard to imagine how we would get that strength back up. It's very easy to break relationships, but hard to build them up again. And it is easy to fantasize about some kind of wonderful relationship with a country like Russia, but it is very hard to imagine how that relationship could in fact benefit the United States as a whole."

Toward the end of the NewsHour, the political commentators Brooks and Capehart made these observations:

Brooks: "All my life I have had a certain idea about America. We are a flawed country, but we are fundamentally a force for good in the world. We make mistakes, but they are usually mistakes out of stupidity, naivete and arrogance, not because we are ill-intentioned. What I have seen over the last five or six weeks is the United States behaving vilely; vilely to our friends in Mexico and Canada, vilely to our friends in Europe. Today was the bottom of the barrel. Donald Trump believes in one thing. Might makes right. In that, he agrees with Vladimir Putin. They are birds of a feather. And he and Putin are trying to create a world that is safe for gangsters, where ruthless people can thrive. We saw the product of that feeling today in the Oval Office. I feel moral shame. It's a moral injury to see the country I love behaving this way."

Capehart: "This is a fundamental break between the European and America. America is now closer to Russia than Europe."

In my world (this is me talking), what all of this tells me is that the Dark Brothers have an emotionally weak agent in Donald Trump who is doing what I suspect they would dearly love to see—the destruction of the United States not only as a reliable world leader but also as a country that cares about its people . . . all of which is fitting, I guess, for the Kali Yuga.

[31] As a small aside, the more I learn about history, the more I realize that really bad things have happened to all sorts of peoples throughout history. Krakow, Poland, was a thriving center of Jewish culture from 1312 AD until the two-year period starting in 1939 when the Nazis exterminated most of the 60,00 Jews there. *Fifty* to *one-hundred million* American Indians lived in "the new world" before Europeans arrived. One-hundred years later, only *six million* were left. Between 1850 and 1864, *twenty to thirty million* people died during the Taiping Rebellion in China. These were all cataclysmic events from a human standpoint, so why were they any different than what's happening now? Why is *now* the Kali Yuga, and not then?

The answer is two-fold. First, the Kali Yuga supposedly started in 3100 BC, so they DID happen during the Kali Yuga (it is supposed to last 432,000 years, so we are just at the start). And second, what makes our time different is that we are just beginning to have to deal with the earth's response to humankind's thoughtlessness . . . which brings us to the next section.

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[Still, you aint seen nothing, yet . . .]

"As above, so below."[32] Patterns that happen in the littleness of one life will often be seen occurring over greater spans of time (I know, I'm repeating myself). I had little vignettes of boom and bust—my high school football experience; my college football experience; my college fraternity experience—all little pieces of my life, all predicated on building to a crescendo, then seeing everything fall to dust.

I've had full lifetimes that have seen this same pattern. My life with Kay when she was in the healing temple; my life with Kay in Herculaneum; my life as a nobleman before war hit; my life as a pioneer in the American wilderness; possibly my life in modern day, democratic America.

I remember looking at the Italian life with Kay when I was considerably younger and thinking, "Wow, I missed the cataclysm of Vesuvius blowing by only sixty years. That clearly changed life as was known at the time (like, it completely wiped it out in that area). I wonder if there is going to be another natural happening of equal devastation occurring a few years after I die *this* time around?"

Ignoring COVID-19, which may in the grand scheme of things be no more than a mere blip in comparison to what I'm about to talk about, and setting aside what may be seen in retrospect as Trump's comparably laughable efforts to make America into his own little fiefdom, on March, 2011, I read an interesting article (Welcome to Barrow, Alaska) in the Smithsonian magazine. It said:

> "Barrow is ground zero for climate-change research," Donald "Nok" Acker of the Barrow Arctic Science Consortium, a nonprofit research support organization founded by the Inupiat Eskimos, said. (This sentence came after the following paragraphs, but I've put it here to preamble what follows.)

[32] I first ran into this phrase from the Brothers, but it was apparently a quote from Hermes Trismegistus, a man who existed in "mythical times," who was, in all probability, part of the Brotherhood, and is associated with both the Greek God Hermes (who was believed able to move freely between the worlds of the mortal and the divine, or the inner and outer worlds) and the Egyptian God Thoth (the God of writing, magic and wisdom). His writing influence writers like Browning and Emerson. Plutarch mentions him in the 1st century AD.

> I had come to Barrow to learn about ice and climate change from Eskimo elders and hunter and from scientists. For two weeks I'd been visiting northern Alaska coastal villages as a guest of the Coast Guard, and what I'd heard was disturbing. Each year the sea ice was getting thinner and arriving later. Coastal storms had become so dangerous that some villages—lacking the shore ice that used to protect them—will have to be moved miles inland. In one village I watched the Army Corp of Engineers build rock walls to shield against fierce waves. Fish species from warmer waters were showing up in fishing nets. Insects that no one recalled seeing before—such as spruce bark beetles, which kill trees—were falling from the sky. There was a proliferation of flies that make caribou sick.
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> Inland, elders told me, tundra lakes were disappearing, and with them the drinking water and nesting grounds for millions of migrating birds. Riverbanks—without enough ice to shore them up—were eroding, filling the waterways with silt. When hunters went out after moose, their boats increasingly ran aground on flats.
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> "It's harder to find food," I heard again and again.[33]

All sorts of stuff flooded through my mind as I read about this. Foremost, though, were thoughts of the businessmen and women on Wall Street and in corporate America who are completely oblivious (or would like to be completely oblivious) to the consequences of their fiscal policies. Making money. That's all that matters. (I saw a great Doonesbury cartoon a few weeks ago that had a businessman berating the Republican Presidential candidates for being wimps and not owning the fact that their objec-

[33] It's 2015 now. Years ago, someone noted that in the future, wars would be fought over water. I thought that was ridiculous, but maybe not. With global warming messing up weather patterns, California has experienced a drought which, hopefully, will lift with time, but that has brought to light a problem that is worldwide. When rainfall falters, people dig wells to tap the aquifers in which reside water trapped thousands of feet below the surface. According to a PBS NewsHour segment (they were interviewing a UC professor of Earth Systems Science and Civil and Environmental Engineering), a recent series of studies has shown that 21 of the 37 largest aquifers in the world are having water withdrawal from them faster than it can be replenished. The aquifer below California, for instance, is losing 5.5 trillion gallons of water a year. This trend may reverse, but the numbers highlight a very real possibility. If our weather patterns change permanently, water may become in the 21st century what oil was in the 20th century.

tions to the *global warming as reality* belief wasn't due to a true disbelief of the science but, rather, a complete disinterest in losing profits in favor of saving the planet.)[34]

Addendum: It's 2016, and I just watched the movie, "How to Let Go of the Planet" on HBO. It's a very clever film. It starts out with the author and producer dancing about on camera. An oil company had come into his Maine hometown and tried to get permits to explore for oil using fracking. The population had risen up and blocked the advance; the guy was dancing to celebrate the victory.

A few days later (in the film), he went out into his yard, look at the tree he had planted with his father when he was a small boy, and realized it was dying of bark beetle infestation. The beetles had migrated all the way up into Maine because, with global warming, summers had become longer, winters had become shorter, and the cold snaps that would normally have killed off the blight were no longer severe enough or long enough to do the job. The beetles were migrating hundreds of miles further northward than ever before, and they were now devastating forests that used to be protected from them. He and his friends had won a battle, but humanity was losing the war.

So he made this movie on global warming.

Coupled with other bits and pieces of information I've accumulated, this is essentially what it had to say:

> —Man-made global warming is irreparably changing our planets. Altered weather patterns have already begun to cause extended droughts. With time, once arable lands will become deserts (apparently, 6000 years ago the earth's temperature was 1^{o} C warmer than it is today and Nebraska was a desert—in the 1930's, the area experienced a short throwback that produced "the dust bowl"—global warming will inevitably make areas like Nebraska that now produce food, and that are built up with irrigation systems designed to support food production, into areas that can no longer physically succeed in that endeavor).
>
> —Extreme weather events have already begun to create

[34] I remember the Brothers reflecting on the state of many humans in this day and age. They said they were like the man who had fallen into a deep well full of alligators. As he fell, he was able to grab hold of a vine near the top, which stopped his fall, but it was thin and was slowly giving way, and on the vine was a poisonous snake, an asp. None of that mattered to the man, though, because as he hung there, all he could think about was reaching for that single strawberry he saw on a vine hanging just out of his reach.

frequent, super-sized thunderstorms and hurricanes. Hurricane Katrina, for one, hit New Orleans in 2005 generating property damages of approximately $108,000,000,000—that's 108 billion dollars.

—We are beginning to experience unseasonable, devastating flooding. It is summer, 2016 right now, and Louisiana just had a rainstorm in which 31 inches of rain fell. According to experts, a 21-inch downpour happens once every *1000 years* . . . this was a 31-inch deluge. Over 30,000 people had to be rescued as a consequence of the flooding.

—We are already beginning to experience supercharged forest fires and blisteringly hot summers (the ten hottest summers on record in California have happened in the last twelve years). Within 50 years, it is likely that heat waves will have Sahara Desert-like intensities with heat stress regularly killing off the elderly and the young during the summers.

—As weather patterns change and the earth's average temperature increases, disease vectors like mosquitoes and voracious pests like the bark beetle will move into areas that heretofore had been free of their presence. It is likely that both human epidemics and forest and crop devastation will follow (this is already begun to happen).

—The oceans are both warming and acidifying (they are 30% more acidic than they were at the beginning of the industrial revolution). There have already been extinction-class events in our oceans at the animal and plant level.

—And then there is the melting of the Greenland ice sheet and, possibly, Antarctica (or, at least, part of Antarctica). As ice cover melts, its reflective surface diminishes with less and less energy-soaked sunlight being reflected back into space. This accelerates the warming of the planet.

More to the point, though, if the Greenland ice sheet were to melt completely, and there is every indication that it is currently melting at a ferocious rate, it will raise the sea level by 20 feet. That will put most of the coastal cities *on the planet* under water, not to mention erasing whole island nations in the process.

At a 2005 international conference on climate change, it was agreed

that the nations of the world should move to limit man-made global warming to a temperature change of 2^{o} C (3.6^{o} F). Unfortunately, the planet's average temperature change due to greenhouse gases has already warmed the planet 1^{o}s worth, and the amount of free CO_2 in the atmosphere insures another $.5^{o}$ C even if all additional greenhouse pollution is stopped TODAY (remember, this was written in 2016). Given that coil burning power plants are being built as I write this, and given that half of the U.S. Congress claims that global warming isn't happening at all, and coupling that with the problem of third-world countries wanting to increase their standard of living, which takes energy (some of which will be generated by coil burning power plants), the chances that we will be able to stop the increase at 2^{o} C just aren't very good.

Still, when we do get to the 2^{o} C level, it is estimated that the average sea level rise will be somewhere around 15 feet. That means that for those of you who want to go to Harvard or MIT, those fine institutions will be on islands because the surrounding land will be underwater. Miami will be no more, as will be large parts of most coastal cities.

In short, global warming, which IS happening no matter what the Republican Congress says, has a good chance of displacing somewhere around HALF the earth's human population by the time it has run its course. It is likely to cause widespread famine, widespread species extinction, widespread water crisis and widespread chaos.

And unless the pronouncement, "As you sow, so shall you reap," has a major loophole in it, given the mindlessness that seems to have so effectively slowed down Congressional efforts to adequately deal with this situation (this written in the mid-2010s), it would appear that we are generally screwed.

And with that, I believe I have found the true Vesuvian event that, if my apparent, personal, karmic arc is to be taken seriously, will happen after I die. It looks like my karma really is to come into a body shortly before a major dislocation occurs within the human story.[35]

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[35] . . . and as a small editorial note: There is something in the discipline of *history* called *shifting baselines*, a phenomenon in which we calibrate our expectations of the world by how it was when we arrived irrespective of what came before. As you read this, years after I wrote it, you are probably inured to global warming because with all the hurricanes and wildfires and tornadoes and floods, it has become *just the way the world is*. But when I first began writing this chapter, that mental landscape wasn't the norm (and a pandemic certainly wasn't on anybody's mind, either). In other words, the reason I keep quoting the date at which a particular section was written is because the basis of this chapter was written, not from the perspective of someone sitting in the middle of chaos looking back but, rather, from the perspective of someone sitting in relative calm, wondering about what the future

x

[Parting shot]

I am not a historical figure. It became evident to me early on that I was not meant to be someone who would be a major player on the world stage. In this day and age of the Internet and one-day-wonders who have hundreds-of-thousands to millions of Twitter followers, my karma has been to touch the minds of very few . . . like, apparently, maybe, yourself. And I've been good with that.

So words of wisdom? I guess what keeps me sane is that global warming and all the problems it will bring is not happening by accident. It is a natural consequence of the way humans think about their world, the way they treat their resources, and the karma of the individuals who have been drawn into bodies now, during the Kali Yuga, the Age of Iron, the time of choosing. That is, the majority of people who are populating the planet at this point in time need to be put under pressure to decide if they will act out of self-preferment or on behalf of the whole of life.[36]

Going on the assumption that you are in that latter group, you should do everything you can to make things as good as you can for the world around you, given the tools life has provided you. But when things seem to be going down a rabbit hole, try not to despair. Don't forget that no effort is ever really lost, and that you do not cease to exist when your body dies. That doesn't mean you should squander your life or the earth's resources, or that we as an evolution can't fail and collectively go into a sleep state. What it means is that all is not quite the doom and gloom I have suggested as I've sewn together this tale over the years it has taken to write it out. Know that there is a cosmic method to the madness. Even if there are massive epidemics and wars and all sorts of havoc, during all of it the spiritual evolution that is this place will continue. After all, our purpose has always been to learn to exist in matter. That hasn't changed.

. . . And now might be a good time to go back to Chapter 11 and re-read some of the quotes from the Brothers.

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would bring. In fact, much of the book has been written from that perspective.

[36] It dawned on me that I have been talking about people's karma as something that was generated by actions in the past. Although that is true, what I haven't stressed is that the actions you and I take NOW are generating the karma that will create our tomorrow. You and I, in other words, are not only dealing with past karma, we are creating new karma for the future. You truly are your own parent. This is something else you should think about.

Chapter 47

Resources

[The Brotherhood is never *not* active, but there are two times during the year that are special. The first happens around the time of the *summer solstice*. At that time, there is a gathering of Masters and chelas from all of *the rays* in an undisclosed place in the Himalayas (this gathering is referred to as *the Assembly*).[1] The second is around the time of the *winter solstice*. This is an entirely different affair; it is a time of *testing*.

The bottom line of each of the next three chapters is how I have dealt with this time of testing between the years 2018 and 2024. Each chapter has a fairly in-depth preamble that is going to seem very off-the-wall, but that you may well find more interesting than the bottom line itself. In fact, part of the reason I wrote these chapters was to present the ideas embedded in the preambles.

Be that as it may, I had to rearrange the chapter order because as I proofread and kibitzed with the material I had already written, I found myself inserting things that didn't follow chronologically. In doing the "final" proof-read (which turned out to not be that at all), I noticed how confusing it was to read about something that was relevant to 2022, then

[1] As a small side-point, I haven't said anything about *the rays* before now because it is one of those esoteric topics Theosophists know about but I don't think the Brothers really wanted people getting hung up on (the Brothers *did* talk to us a bit about them, but at least some of what I'm presenting below came from a Theosophical website called theosophy.wiki). The idea is that when the universe was *thought into existence*, the great Artificers formed seven primordial streams of thought-energy that were to support the Consciousnesses that would come to inhabit the inner and outer worlds of our system. The manifestation of those energies are called *rays*. All humans partake to some degree of each of the *rays*, but each human has one *ray* he or she is particularly attuned to.

At the head of each of the rays is one of the Brothers. Morya is at the head of the First Ray, which is focused on *intellect* and *force of will* (evidently, I'm on that *ray*). KH is at the head of the Second Ray, which is centered upon *compassion* and *wisdom* (Kay and Cathy are on that *ray*). The Third Ray is associated with *adaptability and doing the right thing at the right time*; the fourth with *harmony and beauty* (people who are focused in the arts are on this *ray*); the fifth with *observation* (scientists are on this *ray*); the sixth with *devotion* (saints and mystics are on this *ray*); and the seventh with *ceremony* (this *ray* is associated with religion and magic).

The important points are: There are *streams of thought* that are animated in each of these rays; you and I are attuned to one of them more so than the others; and there is a Master at the head of each.

shortly thereafter to read something that was relevant to 2018 or 2021. My solution was to reorder everything, which will hopefully not bite me in the ass with references being made to stuff you haven't yet read. I've tried hard to make everything coherent. Let's hope I've succeeded.

No matter the skill with which I've rehashed this mishmash, I'm hoping the preambles will make it all worth while.]

One of the things that has struck me over the last several years is the fact that life and karma have been willing to burn an incredible amount of resources to keep me comfortably ensconced in physical form. Every time I sit down to eat, for instance, I'm a little ashamed at all the food I consumed just to keep this old body going.

It's not that I lived extravagantly. I don't. I do have a nice home (2100 square feet all to myself with the exception of that one year when AB lived with me), and I do get to snuggle into a very comfortable, Queen-size bed (cotton sheets in the summer, flannel sheets in the winter), and I do get to enjoy a nice backyard complete with very old, large, Chinese elm tree and a Pecan tree, and I want for very little (though living like a monk probably helps).

I am no longer shelling out money every month on behalf of Amber and her family, so my bank account has begun to swell, but in a way it doesn't matter because I have always been like my mom, having enough to get by but rarely more than I need (though right now I have considerably more than I need). And yet all that I have said above comes nowhere close to letting you in on the staggeringly complete care I'm being provided by life. To drive *that* point home, consider:

Electrical usage: All day long, my refrigerator turns on and off, and pretty much every evening I run a low-energy lightbulb in the living room, three ceiling lights in the kitchen, one lamp in my bedroom and a TV (the TV is attached to cable; my internet comes in via fiber optics and I connect to it via WIFI). These pull very little electricity. Once a week I use a dishwasher. Once a week I use an electric washer and dryer to do my laundry. On the whole, my electricity usage during the winter is meager, maybe 1 or 2 kilowatt-hours per day (one-kilowatt-hour is the energy required to run thirty 100-watt lightbulbs for ten hours, not that I do that).

Unfortunately, my house cannot be insulated well (the front room ceiling is essentially the roof with no attic crawlspace in between, so there is no insulation between the roof and the ceiling and no way to make that

area energy efficient). In the summer when it's hot, I run the AC. The house has central air-conditioning, but the thermostat is in my bedroom, which is the only room I work to keep warm in the winter (except at night when I turn the furnace off and let it get as cold as it wants) and cool in the summer with the AC. That means that during the summer, I don't strive to keep the whole house cool, just my bedroom.

The summer use of AC draws a lot of power and is why my *average* consumption on a yearly basis is around 8 kilowatt-hours per day, or around 3000 kW-hours per year. This is not wildly out of line with houses of similar size, but you have to remember that it is happening to benefit a single person . . . so not so great.

My water heater is gas powered, so taking my nightly shower, running the dishwasher, shaving in the morning, cooking, they all require gas. During the summer, this amounts to a few therms a month, which is quite low (a therm is 100,000 BTU's, where a BTU is the amount of energy required to raise a gallon of water one degree F, or approximately 10,000,000 joules . . . and if you want to get whimsical, a joule is approximately the amount of energy expended in lifting a quarter-pounder from your plate to your mouth three times).

It is during the winter, when I use gas to fire my furnace, that the usage goes up and most of my yearly total occurs. From November 2018 to March 2019, I used 380 therms or 38,000,000 BTU's (this, according to the Gas Company). Again, for a single person, this seems like a ton . . .

My water usage during the winter when I'm not watering my front lawn (I've never watered anything in my back yard)[2] is around 75 gallons a day (this is from my November, 2019 bill). This goes toward nightly showers, cooking and toilet use. By comparison, Amber's household in Highland has an average of around 425 gallons per day. She still waters her front yard (though not as much as during the summer) because the Homeowners Association demands that the lawns be green year-round, and without watering, that doesn't happen. My usage gets closer to hers during the summer when I'm watering my front yard. Then, it must go up precipitously as my *averaged over the years* is around 300 gallons per day (that means my *hot-months average* must be around 500 gallons per day). The bottom line is that over a year, I use around 100,000 gallons of water, which seems (again) like a ton.

I try very hard not to generate waste. The plastic bags you get at the market for produce, I re-use them four or five times before throwing them

[2] This changed a few years back when I put grass in the back.

out. I don't flush the toilet until absolutely necessary. I eat everything on my plate. Like many, I try to be thoughtful about how my actions will affect the planet.

My mom gave me a bicycle the first year I taught at Poly (a ten-speed Sekai). I rode that bike to work, rain or shine, for 39 years (the bike finally died three years back when its back fork shearing due to metal fatigue—I still bike to Poly every day, but on a much nicer, new bike . . . a Bianchi). I drive my car to go to the movies, usually once a week, and I always get groceries on Sunday mornings. I also, naturally, use the car to go places my bike can't accommodate. The consequence of all of this is that I put gas into my car once every three to four weeks. I drove my Honda Accord for 26 years and ended up with around 90,000 miles on it total, had a Porsche Boxter for fifteen years before an accident ended its existence, and currently drive an old, 2006 Acura TSX (the Porsche straddled the Honda and Acura, so there was a time when I had two cars).

What is really striking to me, and what got me started thinking about all of this, is the amount of food I eat.[3] I buy my food at Whole Foods, Trader Joe's and the Vons on the corner of Colorado Blvd and Sierra Madre Blvd (I used to get food at Granny's Pantry on the corner of California Blvd and Arroyo Blvd, but that was years ago). I probably spend around $350 a month on food.[4]

Breakfasts are always sparse, just corn flakes with lactose-free milk and Whey-Lo (a sugar substitute that doesn't give me headaches the way other sweets do).

Lunches (when I'm working) are always a tofu hotdog, a lump of feta cheese, three pieces of broccoli, a stick of celery and a peanut butter and jam sandwich on toasted, sprouted, sourdough bread (the peanut butter has to be Laura Scutter's because they add no sugar, and the jam is Smucker's Sugar Free). I should mention that I eat all of this off a steel toaster-oven tray, which makes it all look very posh. I don't do this for effect. In fact, I lost the plate I brought from home years ago, needed something to put my lunch on, found and used the tray out of desperation and have never looked back.

When I'm not working, I usually eat buttered, sourdough toast, usually with peanut butter on it (and sometimes with a tiny schmear of may-

[3] This was written around 2019, so some of the foods (as of 2024) I'm about to list are no longer available.

[4] As of 2024, I'm spending around $500 for food per month . . . Yikes!

onnaise on top, just for tang), accompanied by iceberg lettuce and both *BBQ'd* potato chips and *Sour Cream and Onion* flavored potato chips (and you thought I was a healthy eater . . . hah!).

Dinners are another story . . . and I might add, part of the reason I'm being so specific and minute here is because my work-mates only ever see me eating the tofu hotdog, etc., every day for lunch . . . as in EVERY DAY . . . and I'd like to disabuse them of the belief that I am a monosyllabic eater.

To begin with, every week I fry sliced mushrooms in butter, seasoned with onion salt (not easy to get) and dill. I make enough for the week, using the mushrooms to accompany all sorts of other dishes.

Every night I have fresh, steamed broccoli (plain) and more often than not I have cottage cheese. When I have a salad, it is plain iceberg lettuce. I sometimes have steamed asparagus and occasionally have Brussel sprouts, and I always have an eight-ounce glass of sparkling mineral water over ice (I like the *365 Italian* from Whole Foods) with a second and sometimes third glass to sip on after dinner.

I like sandwiches. Trader Joe's bakery makes a Cracked-Wheat Sourdough Bread and a Sourdough Wheat Bread the loaves of which have huge slices, so I can make a sandwich-and-a-half out of them for a filling meal (see photo). I will fry six or seven slices of fake bacon, toast and mayonnaise the bread, then layer the bacon on the toast with the iceberg lettuce and tomato on top. Another variation is to take fake ham and do the same (that meal usually has BBQ'd potato chips included), and a third variation is to do the same with fake pepper steak. (I realize this sounds like I'm interested in meat, but what I'm really interested in is the taste, which is usually salty and oily.) I sometimes include corn on the cob.

When I have vegie burgers (Amy's "California" style), I use Alvarado Street Bakery's Sprouted Wheat Sourdough bread, again toasted with mayonnaise, but I usually melt cheese on the burger and add mushrooms, avocado and tomato to finish it off (it is all about the fixings). Iceberg lettuce is included on the side, and I normally have French Fries with this. Another variation is to use fake chicken patties on the toast (though I sometimes have the fake chicken without toast and coupled with rice,

which is also good).

I will occasionally have boiled tofu hotdogs on toasted Trader Joe's Sourdough with unsweetened catsup. That dinner also comes with French Fries . . . and remember, all of these meals will include broccoli and cottage cheese and sparkling mineral water.

My nod to Mexican cuisine, and probably the most complicated meal I make, is homemade nachos. I take unsalted, corn-based chips, grate Monterey Jack and Goat Gouda cheese over the chips, and melt the cheese in the oven. I make homemade guacamole using avocado, a dab of mayo, onion salt and chopped tomatoes. Along with the guac, I have sour cream and cocktail sauce for additional dips . . . and there is broccoli, etc . . . (A photo of that spread is shown above, though apparently that night I also had asparagus.)

My pasta dishes number three. I very rarely but occasionally use a wok to fry up greens (usually kale) in olive oil with fried mushrooms, pine nuts and sometimes dried tomato, then put the resulting mess over whole wheat, Angel Hair pasta (pictured to the left). Grated Romano cheese will be sprinkled over the final product. In addition to that, I will take well buttered sourdough toast, sprinkle Romano cheese over it, put it in the broiler and end up with a kind of garlic toast, minus the garlic. And as always, cottage cheese, broccoli and sparkling mineral water come with the package.

My second pasta dish is considerably less involved in the making, but no less enjoyable. Trader Joe's has a frozen Fettuccine Alfredo product

that I really like.[5] I add cut up fried mushrooms and eat it with a salad of iceberg lettuce along with the usual (br, cc and smw) rounding out the fare.

The third is plain old Angel Hair pasta with pesto sauce and grated Romano cheese on top, maybe some garlic bread (sometimes with *spinach and cheese ravioli* . . . and the usual—see to right).

I sometimes have fake (frozen) turkey patties from Whole Foods, and sometimes fake chicken nuggets. I usually accompany these with mashed potatoes along with the standard (br, cc and smw).

Whole Foods also has a very good frozen fake Halibut steak product. I make a pseudo tartar sauce (mayonnaise, dill and onion salt) and usually have French Fries along with that.[6]

I occasionally have Spanakopita from Trader Joe's (frozen) along with the usual. I occasionally have Three Cheese Vegie Pizza from Trader Joe's (frozen—I add sliced fried mushrooms and cut up olives to the topping) along with the usual.

Off-the-wall dishes include frozen Vegan Chicken Tikka Masala which I put over freshly made rice, along with the usual.

I eat a lot of eggs. I'll take six eggs and fry them over easy, then have them with fried fake bacon (or fried fake ham slices) from Whole Foods and fried (frozen) hash browns (also from WF). I sometimes soft boil six eggs and put them on buttered sourdough toast, adding onion salt to taste. And I sometimes have omelets . . . of two types. The first is just a plain omelet the five eggs of which I put on sprouted sourdough toast slathered in mayonnaise, and the second is one in which I add chunks of Monterey Jack cheese, sliced fried mushrooms and sliced olives. I usually have buttered toast on the side with that.[7] All these dinners have "the usual"

5 It's 2024, and they've recently come up with a *Linguine with pesto and tomatoes* that I've come to really enjoy.

6 They have since canceled the fake fish offering. Grrrrrr.

7 I should probably point out that when I say I have buttered toast, I really mean BUTTERED toast. It is not at all uncommon for me to go through nearly a quarter of a pound of butter in a single meal. Along with using it in cooking, I use it like a spread on toast . . .

accompanying them.

I like soup. My two options are Cream of Mushroom and Lentil (shown to the left). When I have soup, I usually have some kind of cheese/toast dish along with it. In the picture to the left with the Lentil soup, you see three such concoctions—a Cracked-Wheat Sourdough with Monterey Jack cheese melted on it, a second Cracked-Wheat Sourdough with sliced Muenster cheese melted on it, and a Sourdough Wheat Bread with Goat Gouda melted on top.

I have Amy's Lasagna (frozen) with buttered toast on a fairly regular basis (along with the usual), and I have just recently found and begun to enjoy eating Amy's Palak Paneer,[8] Amy's Mattar Paneer and Saffron Road's Vegetable Biryani, along with chapattis (they are like an Indian, whole wheat tortilla) and sour cream standing in for raita. My digestive tract seems particularly pleased with me when I eat this meal . . .

As for desserts, I didn't eat them for years because I used to get headaches after eating anything with sugar in it, but two things changed that. First, I was prescribed a drug, Topiramate, that under normal usage is for seizures but in micro doses seems to thwart migraine headaches. And indeed, over the last six or so years since I started taking it, I have had instances when my head has felt compressed the way it used to when a headache was coming, but no pain has come on. That has given me considerable leeway in eating small amounts of sweet things.

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almost like spreading peanut butter . . . as in, really thick. I've eaten butter that way all my life. And no, I don't have clogged arteries. Before I had the myxoma removed (the tumor in my heart), they did a cardiac angiogram in which they started in my leg and threaded a catheter up through blood vessel to my heart. Afterward, the doctor doing the procedure said my arteries were "clean as a whistle." . . . so there . . .

[8] When I was in India, I lived on paneer, which is a kind of soft, tasteless cheese. I'd taken two bottles of Vegit, which you can't get anymore, but which was a very tasty salt/seasoning substitute, and when my stomach was upset (which was most of the time), I'd order boiled potatoes and paneer, then use the Vegit on the paneer. I have very fond memories of eating paneer in that way . . .

The second has been in my stumbling across a sugar substitute called Whey Low. It looks like sugar (fairly fine, white granules) and tastes like sugar but isn't sugar, and my body seems OK with using it. When I first came across it and realized I could use it as a sugar substitute, I went wild. I made a lemon-meringue pie (tasted just like the Marie Callender's version I'd had thirty years earlier). I made a chocolate cake. I made both chocolate and vanilla ice cream (even bought an ice cream maker). I made chocolate chip cookies (used 86% cacao dark chocolate chopped up into little pieces as a substitute for the chocolate chips).

There was a period during which I made pretty much every sugar-based dessert I could think of that I had been deprived of due to the headache period, which span a good three decades. But then I fell into a more sane rhythm. Now, on one night, I'll have three or four cubes of watermelon (I buy a weeks-worth at a time in small plastic containers), the next night I'll have a single, frozen, sugar-free "pecan delight" (Russell Stover). The next night I'll have several slices of fruit (I particularly like nectarines and apples). And on the next night, I'll have a single, frozen, sugar-free mint (again, Russell Stover).

I occasionally go completely wild. I once bought a six-pack of drumsticks, opened the package, removed one drumstick, took one bite and gave the rest to friends (too much sweet). I pretty regularly use heavy whipping cream with added Whey Low to whip up a bowl of whipped cream. I will eat that over several sitting, usually as a dip for a single square of 85% cacao dark chocolate, but on rare occasions as a filling for several mini phyllo pastry shells (see photo) or on even rarer occasions, with homemade short bread and strawberries to make strawberry short cake (very decadent).

I am very spoiled, and I often have an overwhelming sense of gratitude that I have the ability to take care of myself.

_____x_____

[Aside for letting my friends at school, who see me with the same lunch every day, know that I am not as sadly pathetic in the world of gastroin-

testinal delights as they probably think, I'm talking about all of this for a reason . . .]

I am not TRYING to squander energy resources. I can't handle extreme temperatures, so it isn't unreasonable for me to use AC in the summer and my furnace in the winter. I eat well but not gluttonously so (I never eat between meals and my weight has stayed more or less the same since I was young, right around 175 to 185 pounds . . . which is about right for someone who is 5'10").

Still, in comparison to the rest of the world, I burn a lot of energy and consume a fair amount of moderately expensive, high-quality food, and let's face it, if you had to find a phrase that characterized my existence right now, it would have to be (at the very least) *well taken care of* . . . and for what?

I can see that earlier in life, at least part of my reason for being was to present ideas the Brothers wanted "out there" into the minds of selected Poly students (and no, I have no idea who those students were, I just know there were individuals who needed to come into contact with the Brother's teachings, diluted as they were through me).

A little later, I had karmic knots to attend to, all of which I did my best with. But what about now? Why is life keeping me around in such (relatively) extreme comfort (at least for me)? I'm not complaining, but it isn't altogether clear.

_____x_____

[Shifting gears, and two dreams . . .]

This sudden interest in *the why* actually popped into my head in mid-November of 2019 when a couple of other things happened that didn't answer the question currently on the table but did remind me about stuff associated with the Brothers that I hadn't thought about much for several years.

The winter solstice was approaching. During this time, the Brothers are very active with their chelas in what can best be described as *testing*. There is more to it than just that, there is a setting of a tone for the next year, but the point is that it is a very intense time for the Brotherhood.

That said, I decided this year that I would concentrate myself on *not* doing anything that might generate or support thought that could diminish whatever the Brothers and their chelas were doing at the time. That is not

to say that I had been out raping and pillaging to start with, and it isn't to say that I completely succeeded in my efforts, but there were things I'd noticed I was doing, primarily in the way I was thinking about things, that weren't up to snuff, and I decided to curb those impulses as best I could so as not to hinder the Brother's efforts (not that I supposed that I was so important that my puny efforts would make very much difference . . . but it made a difference to me).

Shortly after making that decision, the question, "Why are you still here?" land on me.[9]

It didn't really register with me at the time, but in looking back I remember having a dream the night of the landing in which I was in my home entertaining company. At some point, I looked out an open door into the back yard, then closed it and tried to lock it. Once closed, I turned around to saw a second back door standing wide open. I thought to myself, "Wow, anyone could walk right through that door." As I went to close it, I woke up.

I didn't think much about the dream, though I will say that under normal conditions, being "in my home" usually has something to do with my state of mind—it has to do with "where I live." In any case, a few weeks later I got the idea to write out the summary-of-resources you just read, culminating in the question, "Why am I still here?" And lo and behold, that night I had another dream about being in a house. In that instance, I tried to close and lock my back door (again). As I worked with the door, I realized the lock didn't work very well (I would lock it, then pull on the handle and the door would pop open). I finally got it locked to my satisfaction whereupon a friend came crashed through the door making it clear that the lock still wasn't working worth a damn. I decided I needed to go to the hardware store, buy a deadbolt lock and install it on the door.

With that I awoke. And when I did, it all became clear.

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[9] In and of itself, this question could seem a bit arrogant. One might wonder whether I thought, in that every-so-classic personal-self, child-self way, that I was so special that life would only keep me around if it had some special task just for me to do. Was I really that fat-headed? These questions also presented themselves to me, and the answer that came, to my relief, was that that wasn't what was motivating me. Nature and karma have spent monumental amounts of energy and time and resources in creating and supporting the body of *every human being on this planet*. I am not special in that regard. I, like everybody else, am here to live life, to be faced with choices, to make decisions, to learn, maybe to deal with karmic knots, to generally do what humans do as we move on our spiritual path. Being curious about my path isn't a bad thing. In fact, it's kind of normal. And in this particular case, there was a karmic method in the madness, which you are about to see.

The Brothers have said, "We live in a sea of thought." I love that quote because I can so clearly see in myself how true it is. I am suffused in thoughtforms. More to the point, *we* are suffused in thoughtforms. It pervades the space in which we exist. It is something most of us don't even cognize as actively affecting our way of living, but it is something that is constantly running through us.

For too long I have been easily swayed away from my *attention to the moment* by the thoughts that waft about me in everyday life.[10]

Put a little differently, the Brothers need workers who are attuned to the reality of their situation, who are focused enough in their everyday life to not be mentally hijacked by a pretty face and shapely body, or a pet peeve, or some national outrage perpetrated by an erstwhile politician.

That was the dream's *door that couldn't be locked*—the ease with which thought could be projected at me and swamp me, the ease with which the Dark Side might move me away from holding a discipline that might be important. When I am not being attentive, and that happens often, stuff can just come in and rattle around in my brain in a completely uncontrollably manner. I am easy pickings should a dark agent want to sidetrack me from doing something useful.

That nearly free entrance is, again, *the door that cannot be locked*.

And where do I see this happen?

I am constantly running into minor, personal outrages whereupon I spend forty-five minutes going through mock conversations in which I vanquish the opponent or explain, clarify and defend myself, or whatever. And by the time I'm done, I have done nothing more than exhaust myself, taking up my attention with something that is inconsequential, all the while effecting no lasting change in anything.[11] There have been oc-

[10] This isn't always bad. There are times when I have had to make a decision about something and I've gotten a strong feeling (a "thought that has wafted about me") that I didn't know everything there was to know about the situation, and that there was stuff going on underneath the surface that, if I knew about it, would inform my decision in a direction other than the one I was about to take. That is a kind of sensing of thoughtforms, a kind of sensing of karmic lines, that can be useful (I have had instances when I have had a really, really strong sense that doing something my child-self wanted to do was going to turn out badly, and I've ignored the feeling and things have turned out badly). I hesitate to mention this because most people have a wonderful imagination and I can imagine them imagining all sorts of things that they attribute to "the sensing of karmic line," which for most people in most cases is probably not what's going on. I am, in other words, speaking for me, not humanity as a whole.

[11] To be fair, I probably should mention that staging mock battles in my head have, on occasion, been very useful over my lifetime. They have allowed me to try out lines of thought, in some cases only to find that my reasoning was faulty, or the natural consequence

casions when I have found myself having to fend off late-night fantasies in which the sexual energies come alive;[12] and just living my everyday life has the potential to completely throw me off a disciplined mental game (it seems the Dark Side has coopted our government to do as much damage to people of this country as possible, and it's hard to watch and not become overwhelmed with the thoughtforms of grief or anger or the desire to strike out).

As to that last point, I'm not saying one shouldn't be aware of all the outrages happening in the world, but I can't tell you the number of things I've read in the newspaper or seen on the PBS NewsHour or just heard people talking about that have snagged my attention, and I'd be off and running, mindlessly flowing into the thoughtforms that naturally coalesce around the situation . . . all of which distracts me from what I should be doing, which is to be attending to what is before me and what I can actually affect in my *here and now* . . .

So why am I still here? I'm here because I have been given a lifetime in which I have knowledge. I'm here because it may be a long time before that happens again (I'm hoping not, but who knows?). I'm here because with what I know, I have a better chance of coming into control of my mind than might be the case in my next incarnation. And realizing that, my *walking meditation* for this solstice becomes clear.[13]

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of my thinking was going to take me somewhere I didn't want to be . . . a bad place, even. So going through the process of thinking about situations and arguments after-the-fact isn't necessarily a bad thing. My problem is that I've gotten to the point where I'm doing it for truly trivial matters.

It is somewhat interesting, though, that this is not something that just I do. When you see that old person apparently talking to him or herself, what you are seeing is someone who is doing what I (and probably you) do inwardly, but who has gotten to the point where they are outwardly verbalizing their give and take. They aren't crazy. They have just lost awareness of where they are, and are now giving actual voice to their inner dialogue. (And then, too, there are people who actually hear voices they talk to, a la my mom's experience.)

[12] It's funny, I don't seem to have this problem during the day. But late at night, often as a consequence of something seemingly innocent that I've seen on TV that has tweaked me, it can be (not really, but sort-of) like the trials of St. Paul in the desert cave over that three-day period when he had every imaginable sexual fantasy present itself in full-blown glory. Running away into a thought-stream like that is not going to take me to a place I want to be, yet if I'm just floating along, the possibility exists.

[13] It is June of 2025 and my ability to control what flows through me in a mental way (the closing of those doors) has recently been tested in interesting ways.

The first situation had to do with Amber. For the last two years, she has been working at St. Joseph's Hospital down in Orange County. She has been very happy there because the job has given her the chance to make some really good friends. Unfortunately, her super-

visor decided she (the supervisor) wanted to open up a per diem day-position for a friend, and because Amber had the only one the hospital was willing to fund, she (Amber) became a target. Hospital policy was that if a nurse was written up three times in a half-year period, he or she would be terminated. Not knowing this, Amber didn't fight the fabricated offenses the Supervisor was generating, so when the third one was filed, Amber was fired (there was more to it, but that's a good synopsis). This was heartbreaking for her because she didn't want to leave her friends, but a more devastating consequence was that with a firing on her record, she might have trouble getting another job.

Over the years, I've put a lot of effort into Amber's existence, so seeing her go glug-glug was not something I wanted to happen. That meant that for the first month after her firing, I had to give her $3000 to survive (not to mention not collecting her $1600 rent). What really worried me was that if she wasn't able to find another job, I might have to do that indefinitely.

Fortunately, within a month, "jobs were raining down on her," as she put it. She landed a full-time night job at a very a nice hospital in Whittier; she was offered a teaching position at West Coast College; and she was offered a per diem day job at the Kaiser on Sunset. But the point is, during that in-between time when it wasn't obvious how things would turn out, all I could think about were ways to make that supervisor pay. It was a normal, human reaction, but the thoughtforms I was entertaining and the fantasies that were dancing through my head were, for me, very dark. I wasn't controlling where my mind was going.

Put a little differently, I wasn't empathizing into the supervisor's situation. Who knows, maybe she had a very real need to have friends of her own at the hospital (the friend she was trying to create the position for was a night nurse who had said that if she wasn't given a per diem day-job, she would leave). Maybe she was lonely. I wasn't being kind, and the door was open for a time with the darkness just rolling in.

I will say, it did give me a glimpse of how many of the 250,000 government workers Trump has fired—without cause—might be feeling. Still, chelas can't act that way. Controlling what's going on in my mind *is* really important.

A second situation animated this need a week after Amber's situation. It was a windy day, and the News reported that Edison had just lowering its target for deciding when to turn electricity off in areas where there were high winds. I immediately bristled, noting that because Edison was being sued for having their electrical lines starting the Eaton Canyon fire, they were punishing the population with this threat. Having one's electricity turned off is kind of a big deal. It means no air conditioning, potentially on 100-degree days; it means everything in your refrigerator warms up and goes bad; it means no TV or radio or, once its battery runs down, no cell phone. How dare Edison callously put hundreds of thousands of people (myself included) in such an awful position, all because they haven't done a good job of taking care of their equipment over the years. How dare they . . . and once again, my brain is allowing negativity to flow through me just like walking through an open door.

The last outrage just happened when the Trump administration announced that it intended to sell fifty-eight-million-acres of national forest. Again, someone doing something seemingly despicable with me allowing outrage to marinate in my thinking . . . and once again, that open door strikes.

Fortunately, in all of these instances I realized what was happening and tried very hard to keep the anger from taking hold. It does make me wonder, though, how well I would do as a chela with power . . .

Chapter 48

A Case for the Unbelievable

[This is another chapter where the pathway to conclusions may well be more interesting than the conclusions themselves. Read on!]

As a bit of a preamble, years ago I had an interesting conversation with one of those dyed-in-the-wool skeptics one finds in the world of science. The discussion prompted me to write an entire chapter in my Eastern Philosophy book about skepticism and the shortsightedness it can engender. That chapter began with the following suggestion: If you must be a skeptic (and being one, I might add, is fine with me), do it in Gandhian fashion. Go into every situation asking the question, "Might *I* be the one who is wrong?" You can still look askance at phenomenon and ideas that don't seem to make sense, but at least you won't end up falling into the trap of condemning an idea that has not-so-obvious merit simply because it doesn't fit into your possibly narrow view of the world.

With that suggestion, I give you a fair portion of that E.Phil chapter:

—THE PROPOSITION:

> Water HASN'T the ability to imprint upon its molecular structure a remembrance of its contact with other materials. Specifically, if a healing material is first dissolved in water, then removed completely, the water molecules in the solution will *not* maintain a remembrance of the "energetic quality" of the previously dissolved substance. There are no mechanisms within atomic or molecular structures to allow such an imprinting.

—THE REALITY:

> Open to debate.

—THE PROBLEM:

On June 30, 1988, a *Los Angeles Times* newspaper headline read "French Scientist Produces *Unbelievable Solution.*" The article began:

> Dr. Jacques Benveniste has an unbelievable problem. The French allergist has produced experimental results that other scientists find difficult, if not impossible, to believe. In essence, he has observed a biological effect produced by solutions so dilute that, theoretically, they contain nothing that could cause the effect.
>
> . . . Today, the prestigious British journal NATURE has taken the unprecedented step of publishing Benveniste's results, even though the journal's editors themselves think that his conclusions "have no physical basis" and his findings are "unbelievable."

Strike you as a bit unusual? It is . . . for more reasons than meet the eye. Let's take a closer look.

The first things to know is that Dr. Benveniste is a well published, well-respected member of the European medical community . . . a man once offered the position of France's *Minister of Health* by then President Francois Mitterrand. It is probable that the only reason *Nature* did not choose to ignore him completely was due to his reputation. Similar work from a lesser individual would surely have been trashed by the magazine without a moment's thought.

A second point to consider is the fact that magazines like *Nature* don't relish the idea of being seen as a laughingstock. It is not their custom to take seemingly outrageous, unsubstantiated papers for publication. One of their greatest fears is the losing of their academic status and credibility. It is not surprising, therefore, that the magazine demanded a number of stiff conditions be met before even considering publication. The most crucial of these was the requirement that the experiment be recreated by a number of independent labs around the world.

Three did so. All verified Benveniste's findings.

Still, even with the enormously rigorous scrutiny of other scientists, the editors were skeptical. Why? A bit of history will help us understand.

In the 1880's, a brilliant German doctor named Samuel Hahnemann stumbled onto a generally accepted yet singularly peculiar bit of information while translating Cullen's *Materia Medica* from English into German. In his work, Cullen maintained that "swamp fever" (malaria) was curable using cinchona bark due to the bark's *tonic effects on the stomach.* Because Hahnemann knew that similar tonics had no effect on the fever whatsoever, he thought there must be something else happening (in fact, cinchona bark relieves malaria because it contains quinine, not due to a tonic effect).

This small, seemingly inconsequential disagreement ultimately led to what was to become Hahnemann's lifetime obsession. Piqued by the apparent disparity between Cullen's written opinion and his own observations, Hahnemann decided to use himself as a guinea pig to experiment with the cinchona bark. What he found was quite fascinating.

With the very first dose, he found himself developing all the symptoms of swamp fever, *sans* the fever itself. When he stopped taking the bark, the symptoms would leave. When he began again, they returned. He even went so far as to recruit members of his family for the experiment. In all cases, he observed the same thing. Taking small quantities of cinchona bark elicited a reaction that was characteristic of the disease the bark was purported to cure.

In his book, *INTRODUCTION TO HOMEOPATHIC MEDICINE*, Dr. Hamish Boyd said this about Hahnemann's early discovery:

> . . . Here was a strange phenomenon: a remedy that was effective (as a cure) for the disease which, when given to a healthy person *induced* the symptoms of that disease. Could there be some natural method of cure there upon which he had stumbled? He went back to the ancient literature and found that Hippocrates

> and, after him, Paracelsus, mentioned that substances that produce symptoms could also cure them. (With that), Hahnemann started on his life's work . . .

Hahnemann spent the next years of his life building a *Materia Medica* of healthy-body symptoms produced by the ingestion of small but substantial doses of everything from benign to potentially deadly plant and mineral materials (this process he called *proving*). He found that almost all natural substances tested elicited some kind of reaction in the body, and they all proved to act therapeutically under the right conditions when given in very small micro-doses.

His approach was not widely recognized until 1812. As Margery Blackie, personal physician to Queen Elizabeth of England, said in her book *THE PATIENT NOT THE CURE*:

> With the publication of his (first) two books, Hahnemann didn't stop his tireless search for verification or rejection of his theories. Doubtless he was having success with isolated cases, but these were not really enough to test his findings to the full...
>
> The terrible winter of 1812 took its toll of Napoleon's army in Russia. The bedraggled remnants of the Grande Armee were staggering, starving, bleeding and riddled with disease while drifting across Europe on their way home. Despite their desperate condition, the French fought valiantly but lost a three-day battle at Leipzig in August, 1813. The aftermath was not only death but a fearful epidemic of typhoid. At once, Hahnemann put his hypothesis to the test. He treated 180 cases and his success bordered on the miraculous: only one patient died.

Dr. Boyd adds:

> . . . A cholera epidemic invaded Europe eighteen years later (1831), and again

his hypothesis was shown to work. One of Hahnemann's pupils had only six deaths among 154 cholera patients--a little under 4%. In the same town, of the 1500 patients treated with orthodox methods, 55% died.

Homeopathy spread to Britain, and there was an attempt by the medical profession to have its practice forbidden by law. A cholera epidemic came to the rescue in 1854. When it was over, the results of treatment in the various hospitals were put before Parliament. Fortunately, a homeopathic patient was there and asked why those of the homeopathic hospital had not been included, and demanded that they be procured. They came accompanied by a letter from the Government Inspector. The death rate was 16.4% compared with 51.8% at other hospitals—these figures are confirmed in the British Museum's records. He (the Inspector) said that they were all true cases of cholera, and that he had seen cases recover who would have surely died in other hospitals. He ended by saying: "If it should please the Lord to visit me with cholera I would wish to fall into the hands of a homeopathic physician."

Since his time, Hahnemann's observations and theory have been put to the test over and over again. The results have been consistent. A good homeopathic doctor—one who really knows his or her stuff—can affect wonders with appropriate homeopathic treatment.[1]

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[1] I have a friend who found herself in a desperate position a number of years ago. It seems she was asked to adopt her brother's small, two-year old child. The brother had become a drug addict, was living on the streets, had AIDS, and believed himself to be Jesus Christ. The mother was in no better shape, though she had additionally disappeared.

From the beginning, my friend had problems. The child was bright but very angry and violent—he was ultimately asked to leave preschool because he was "torturing the other children." She knew that if she resorted to the way tens of thousands of other angry, often hyperactive children in our country are treated, the boy would be lost, so she decided to take a different course. She took him to a relatively enlightened pediatrician who prescribed a series of homeopathic remedies to treat the problem (the doctor could have had

Homeopathic remedies are prepared in a very specific way. The process begins when the active substance (Hahnemann's cinchona bark, for instance) is pulverized and made into an alcohol tincture. This initial solution is called *the mother tincture*. Once produced, one drop of mother tincture is mixed with nine drops of pure water. The resulting solution is then succussed . . . a process whereby the mixture is violently shaken in a prescribed manner (it is interesting to note that Benveniste's "biological effect" was not evident with solutions that had been prepared as stated above, but that had not been properly succussed). The final product—the nine parts water, one part mother tincture—is called a *1x potency.*

A *2x potency* is produced by adding one drop of 1x solution to nine parts water, then succussing appropriately. This means that a *2x* remedy has 99 parts water to one part mother tincture—an approximate ratio of 100:1 (note that in scientific notation, this is 10^2:1). *3x* is made from *2x* yielding a water-to-mother-tincture ratio of 1000:1 (10^3:1); *4x* is produced from *3x*, etc. *With each successive potency, the solution has one-tenth the mother tincture content of the previous potency.*

In and of itself, you wouldn't expect this to upset anyone. It is a simple procedure used to produce homeopathic remedies. But there is more. Hahnemann maintained that different potencies could have different effects on a patient. He found from observation that patients who were cured with 10x would not be affected by, say, 20x. In fact, higher potencies—remedies with *less* mother tincture in them—were found to be potentially stronger and were able to deal successfully with more severe cases than lower potencies.

Hahnemann had the following rationale for this apparent contradiction, according to Harris Coulter, Ph.D., in his book *HOMEOPATHIC SCIENCE AND MODERN MEDI-*

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his license revoked by the AMA if it had been know what he was doing). Three years have passed. The child is now like any other normal kid. Sure, he is precocious, animated, and definitely has a twinkle in his eye, but he is *not* angry or violent. More to the point, you will *never* convince my friend that the homeopathic treatment didn't changed her adopted son for the good, and I think she is right (and no, I don't think he was just naturally "going through a phase," or that the treatment caused a placebo effect . . .)

CINE:

> Hahnemann claimed that these high dilutions (low mother-tincture concentrations) were effective because the sick person was ultra-sensitive to the action of the "similar" remedy. He wrote, as early as 1810, that "there are patients whose impressionability, compared to that of unsusceptible ones, is in the ratio of 100 to 1."

In other words, Hahnemann believed that an ill patient who was, say, 1000 times more sensitive to a remedy than the norm, required a remedy whose concentration was 1/1000 that of the mother tincture (i.e., a 3x potency).

Even though this "more is less" (or should it be "less is more?") orientation is certainly different from our commonsense perceptions about what should or should not heal a sick body, this apparent anomaly is nothing in comparison to other objections scientists currently have with the approach.

Consider the following: A remedy rated at 1000x (a potency that is available commercially) has 10^{1000} water molecules for every molecule of mother tincture. A quart of water has roughly 10^{24} molecules in it. That means that if you make up an enormous vat of 1000x solution, then removed one quart of the solution for your use, you will end up with a quart of water that will almost certainly have *no molecules of mother tincture* in it at all.

Yet if it is the correct remedy for a given patient, that solution will be curative. That was what Hahnemann believed; that is what homeopathic physicians around the world have substantiated ever since Hahnemann; that is why the United States legally recognized through the 1938 *Food, Drug, and Cosmetics Act* the equivalent legitimacy of both the *United States Homeopathic Pharmacopoeia* (i.e., homeopathy's Bible) and its allopathic (i.e., conventional medicine's) counterpart, *United States Pharmacopoeia*.

Unfortunately, legal recognition based on effectiveness is not the same as scientific recognition based on theory. Scientific theory . . . that is where the snag arises.

Scientists don't like to dwell on such things, but almost every currently accepted scientific theory has at least some aspect to it that would send any uninitiated yet self-respecting thinker right up a wall. For instance, did you know that the Big Bang theory postulates that all that now makes up our physical universe originally came from *nothing at all*; that light has the fantastic ability to do things that only particles can do but, under certain circumstances, can also do things that particles could *never* do; or that Einstein's Theory of Relativity maintains: a.) that space is not three but rather *four* dimensional with TIME being that fourth dimension; b.) that gravitational forces do not exist (there are gravitational-type effects, but the mechanism is believed to be related to the "curvature" of four dimensional space); c.) that time (the rate at which the moment passes) varies from place to place; and d.) that mass and energy are two different forms of a common quantity—a quantity that nobody can put his or her theoretical finger on.

There is hardly a cubby hole in science that doesn't have some point of belief that is completely unbelievable at first glance. In short, by modern day standards for theoretical weirdness, Benveniste's findings are relatively innocuous. So why are so many scientists put off by his work? It is not as though he is some kind of crackpot. The problem is much deeper than that.

Water is a very unusual molecule. Made up of one atom of oxygen and two of hydrogen, its bonding polarizes its charge in such a way as to give it the ability to dissolve almost any known molecular substance. It has the peculiarity of being more dense in its liquid state than in its solid state (hence ice cubes float), and it takes a tremendous amount of energy to raise its temperature just one degree (that is why steam burns are so nasty—the energy content of water vapor is enormous).

As peculiar as water seems to be, relative to other substances, what is not currently a part of accepted scientific theory concerning its structure is the possibility that it might have the ability to absorb "energetic qualities" of other substances—healing substances for instance (cinchona bark?).

If such *were* the case, homeopathy would have its scientific basis. Water used in a proper homeopathic preparation (i.e., one with appropriate succession, etc.) could, even with no physical substance present within the solution, still carry the healing property of the substance—its energetic quality—as absorbed by the water.

Whenever science collides with any experimentally observable phenomenon, science is expected to use those findings to either support already existing theory or to prompt more exploration and, if appropriate, to make changes in the current mode of thinking. In the case of homeopathy, science has done exactly the opposite. To date, science and modern medicine have ignored the apparent anomaly posed by curative homeopathic remedies by decrying their effectiveness as aberrations caused by a placebo effect. If the patient *believes* he or she will be helped by the medicine, he or she *will* be helped.

Dr. Benveniste's experimental findings have blown that bit of questionable reasoning to pieces. Using homeopathic solutions—solutions with potencies so high that there couldn't possibly be any active ingredients present in them—he has triggered "biological effects that are observable."

Science's response? "Even if the results are there, homeopathy doesn't fit into our view of the way the world works. Therefore, we do not believe the findings." . . . And that is that.

As a follow up, an August 8, 1988 *Time* magazine article read as follows:

> THE WATER THAT LOST ITS MEMORY:
> A Controversial Scientific Finding Is Debunked
>
> SCIENCE FRICTION, acidly quipped one Paris newspaper. Across the English Channel in London, Britain's *New Scientist* magazine howled, *NATURE* SENDS IN THE GHOST BUSTERS TO SOLVE RIDDLE OF THE ANTIBODIES. After months of heated controver-

> sy and speculation, the curtain fell last week, at least for now, on one of the strangest tales of scientific controversy in recent memory. The story became public . . . when the prestigious British science journal *Nature* published a report, hedged with "editorial reservation," on a phenomenon that defied the laws of physics and molecular biology: water apparently retained a "memory" of some molecules it once contained in solution. When such water was mixed with blood cells, that phantom memory seemingly caused a reaction.
>
> . . . The initial findings were apparently reproduced by scientists in France, Canada, Israel, and Italy (but) . . . Last week, *Nature* forthrightly rejected the idea of water with a memory and relegated it to the deep freeze, along with other intriguing scientific "discoveries" that have not panned out under scrutiny.
>
> Its demise was the work of a highly unusual investigative team that the magazine dispatched to Paris. Besides Maddox (the editor of *Nature),* the *Nature* group included James ("the Amazing") Randi (a magician) . . . and Walter Stewart, a free-lance fraud sleuth at the U.S. National Institutes of Health. Their report was merciless: "The hypothesis that water can be imprinted with a memory of past solutes is as unnecessary as it is fanciful." The behavior of the weird water was only a delusion, they concluded, based on flawed experimentation.
>
> . . . Benveniste (the scientist involved in the original experiment) compared the probe to "Salem witch hunts and McCarthy-like prosecutions." . . . (In the end, Maddox said,) "I'm sorry we didn't find something more interesting."

Some observations are in order here: To begin with, when was the last time you heard of a respected scientist

having his or her experiment perused by a magician? And the conclusion this so-called review board came to? At no time did they pinpoint anything wrong with the experiment aside from concluding rather speciously that "the experiments were flawed and that no substantial effort had been made to exclude systematic error, including observer bias" (this was *Time*'s summary of Maddox's final report). Nothing was said about the bias of the investigating group. In fact, it seems that nothings was said of much substance at any point in the presentation of findings. You can bet the proverbial ranch that if Randi and company had turned up anything substantial, they would have shouted it from the rooftops. But all they could come up with was the old, weak standby—a claim that the experimental results were inadmissible due to *unspecified procedure errors*.

SO WHAT'S GOING ON HERE? Who is doing what to whom?

Tough as it may be to believe, homeopathy's legitimacy as a form of health care is not the question we are really interested in here. Neither is it important, at least at this point in time, to determine whether those skeptical investigators were being arrogant and inflexible or responsible and thoughtful in their dealings with the matter. The importance here is our observation and ultimate understanding of science's seemingly phobic concern over this obviously unorthodox medical possibility.

Science is predicated on the belief that there exists order within nature and our universe (even in chaos, it seems, order prevails—fractal theory?). Billions of dollars are spent every year supporting scientific attempts to uncover, understand, and exploit that order.

Under such conditions, it should not be surprising to learn that although scientists might not always agree with one another, they generally have as a group very definite ideas about what is important and relevant within the realm of scientific research and, when all is said and done, about how the universe works. So while most scientists present a facade of unbiased, unemotional reason in dealing with their work, they actually have very deep emotional and in-

tellectual ties to their theories. An examination of history shows time and again individuals who have made monumental breakthroughs only to be thwarted on all sides by entrenched scientific minds who simply weren't willing to look a little beyond the partial order they already perceived (or thought they perceived).[2]

Couple with this the fact that a scientist's greatest fear, aside from losing his or her funding, is being perceived as a sloppy, gullible thinker, and you have an interesting situation. A scientist can be as theoretically wild and crazy as he or she likes as long as the effort is directed "appropriately." But once curiosity strays to areas not generally accepted by mainstream thought, God help the poor soul. The individual will be taunted and scorned and generally bullyragged until he or she either comes back to the fold or drops out.

Homeopathy is just one of those forbidden topics, and the reason why is easy to see. It necessitates the acknowledgment that there is something profoundly unexpected happening at the atomic level . . . something that modern-day science simply has no knowledge of. In other words, homeopathy threatens the accepted order. And when experimental evidence does come to the forefront, even by reputable sources, the tendency is to either ignore it or to conclude that it must be flawed.

_____END_____

[2] My favorite example: In his first printing of *On the Origin of Species*, which concerns the biological evolution of species and natural selection, Darwin's original manuscript referenced a million-year-old fossil he claimed to have found. He apparently removed the reference due to objections put forth by the then-president of the British Royal Society (the Royal Society was *the* scientific authority in Britain) because the president, an astronomer, believed that the sun's energy was caused by the earlier bombardment of comets and asteroids, which meant (due to *conservation of energy*) that the sun (and hence, earth) couldn't be older than 4000 years . . . clearly eliminating the possibility of a million year old fossil. Darwin *did* include the reference in his second printing. [Note not in E.Phil. book: And, of course, we have the boatload of woman who have made significant, Nobel-worthy discoveries in science, only to be completely stonewalled by their male counterparts . . . until someone close to them, always a MALE, has grudgingly noticed the merit of the work, deigned to take credit for the discover and has accepted the Nobel prize for himself. I'm thinking specifically of Dame Jocelyn Bell Burnett who, while a graduate student working toward a PhD, discovered the first pulsar—her advisor (Anthony Hewish) poopooed the discovery for quite some time, then embraced it—she got a PhD out the episode, he got a Nobel prize in 1974 with her not being mentioned at all . . . and she is just one of many . . .]

If the intent of this chapter was to suggest to you that homeopathy is a viable medical resource with a perfectly rational basis, I might point out that the Brothers have said that at the heart of every atom there is Consciousness, and that every atom is like a microdot unto itself that is constantly imprinting upon itself the experiences it comes into contact with. So as I pointed out in Volume 1, every neutral carbon atom has six protons and six electrons, which makes every carbon atom look alike on the surface, but a carbon atom that has been incorporated into an electric chair will be fundamentally different than a carbon atom that has been incorporated into a child's toy (back in the days when toys were made of metal, not plastic) because the absorbed experiences of the two will be different.

This absorptive quality is the basis for what the Brothers and the east call *the Akashic Record*. And if that be the case, with no two atoms being truly alike, it doesn't seem too farfetched to believe that the mechanism that allows the Akashic Record to exist might also have something to do with the mechanism that allows water to "remember" the energetics of a healing substance that has been dissolved in it.[3]

. . . Except that's not the purpose of this chapter. What we are moving toward (though it may not be obvious from what you've read so far) are thoughts about my state of mind and chelahood . . .[4]

In service of that goal, let's go back to the quote from that August 9, 1988 *Times* magazine article. It was the one that blasted Benveniste's experiment and the underlying principles of homeopathy. It read:

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[3] I wasn't going to say anything about this now (I'll be talking more about it in Chapter 51), but I can't help myself so here goes a quick shot across science's bow. When the ancients talked about what makes up the world (earth, air, fire and water), the knowledgeable ones weren't just talking about those physical forms. They were nodding to the Consciousnesses that animate form (*those* forms) in what is known as *the elemental kingdom*. That means water has an Awareness associated with it that is above and beyond other molecular substances (it should not be too surprising to note that fifty-five to sixty percent of a human body is water). The manifestation of these Awarenesses in water is associated with the phenomenon Benveniste stumbled onto. More about the Elemental World later.

[4] This last sentence reminds me of a funny story (as off-the-wall as this is going to seem): According to legend, during a luncheon one day in the late 1800s, James Whistler got a little testy with his luncheon partner, Oscar Wilde, for not really listening to what he was saying during their lunch conversation. Upon being reproved for the lapse, Wilde was reported to have said, "We may be talking about you, dear boy, but I am *thinking* about *me*." (Wilde was, if you don't know, a popular playwright during the 1890s in London. He is best known for writing the novel *The Picture of Dorian Grey*. Whistler was an artist who is best known for painting "Whistler's Mother," estimated value as of 2003 at $30 million).

THE WATER THAT LOST ITS MEMORY:
A controversial scientific finding is debunked . . .

SCIENCE FRICTION, acidly quipped one Paris newspaper. Across the English Channel in London, Britain's *New Scientist* magazine howled, *NATURE* SENDS IN THE GHOST BUSTERS TO SOLVE RIDDLE OF THE ANTIBODIES. After months of heated controversy and speculation, the curtain fell last week, at least for now, on one of the strangest tales of scientific controversy in recent memory. The story became public . . . when the prestigious British science journal *Nature* published a report, hedged with "editorial reservation," on a phenomenon that defied the laws of physics and molecular biology: water apparently retained a "memory" of some molecules it once contained in solution. When such water was mixed with blood cells, that phantom memory seemingly caused a reaction.

. . . The initial findings were apparently reproduced by scientists in France, Canada, Israel, and Italy (but) . . . Last week, *Nature* forthrightly rejected the idea of water with a memory and relegated it to the deep freeze, along with other intriguing scientific "discoveries" that have not panned out under scrutiny.

Its demise was the work of a highly unusual investigative team that the magazine dispatched to Paris. Besides Maddox (the editor of *Nature),* the *Nature* group included James ("the Amazing") Randi (a magician) . . . and Walter Stewart, a free-lance fraud sleuth at the U.S. National Institutes of Health. Their report was merciless: "The hypothesis that water can be imprinted with a memory of past solutes is as unnecessary as it is fanciful." The behavior of the weird water was only a delusion, they concluded, based on flawed experimentation.

If you hadn't read my chapter on homeopathy and all you knew about the subject was what was outlined in the article above, you would probably conclude that homeopathy was a hoax and a fraud and probably think nothing more about it. Problem is, what was presented in the article was the consequence of a sham investigation that produced a gross, twisted misrepresentation of the facts of the matter.

I would not have been taken in by their pronouncements in any case as I know something about James Randi,[5] but that probably wouldn't have been the case with you. And with that observation comes one of the reasons for this chapter. If my immediate inner, mental world and your inner world are predicated on what we know, and what we know is largely predicated on information we have gleaned from outside sources, then it would seem that a fair portion of your inner world and my inner world are dependent upon *who each of us trusts* (sounds sophomoric, but still an important observation).

In the chapter I wrote on homeopathy, for instance, which was composed long before the advent of Google, everything I knew about Hahnemann came from books I extracted from Kay's library (in fact, in re-reading the E.Phil chapter, I was pretty amazed at how well I managed to document my sources). That was the extent of my "knowledge." I took *no time at all* to personally experiment with the process of "proving." I didn't take cinchona bark, for instance, and ingest some of it to see if it really did elicit in me the symptoms of malaria. I *accepted* the written accounts listed in the books I read because they were, in my opinion, trustworthy.[6]

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[5] Randy was a part of a group that called itself *The Skeptical Inquirers*. It was very big on Caltech's campus years ago. Their thing was "debunking" anything associated with psychic phenomena, and they did a decent job of exposing a fair number of tricksters and charlatans along the way (all to the good).

Their problem, if problem be the right word, was in their unswerving devotion to science. It was so unwavering, raised almost to the level fanaticism, that it left no room for self-doubt. And it was that certitude that led some of their members to fabricate evidence to debunk a situation that couldn't be otherwise explain back when I was in my early thirties.

Why did they do that? Because, well, the phenomena they were examining just *had* to be bogus, so even though they couldn't prove it so, it *had* to be proven so. (I tried to Google the incident and initially came up short, primarily, I suppose, because I am not very good at identifying key words for Google searches; I finally stumbled upon a Web site that spoke to the situation, but when I listed it in these pages, then clicked on it, I got a message that said, "This site is trying to steal your personal information" . . . which either meant the site was, indeed, trying to steal personal information or someone with hacking skills didn't want people like you and me poking around in the groups dirty laundry.)

The point is, my willingness to take at face value anything Randi and his fellow skeptics might have come up with would have been scant-at-best, because *I don't trust him or them*.

[6] Trusting in books is not always a good thing. The Holy Bible is a great example. Don't believe me? *The Lamsa Bible,* which is as thick as a *Webster's Dictionary*, exists (in a roundabout way) to identify all of the mistranslations found in the currently accepted versions of The Holy Bible (most of which came from translations based on Greek manuscripts). In the King James version of the Bible, for instance, "the end of the world" is said to come when there is war and famine and pestilence, and yet a more accurate translation of that passage reads "the culmination of the age." The *culmination of an age* could indeed

In short, *who you trust* in the world has a lot to do with the inner, mental world within which you cast about (again, a sophomoric observation, but one that is important). And probably more important, even though the look of your mental landscape has to do with what you've been exposed to, that exposure is seriously affected by your karma and where your High-Mind intends to take you in life.

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[Switching gears . . .]

I started this chapter with some advice. It was, "If you must be a skeptic (and being one, I might add, is fine with me), do it in Gandhian fashion. Go into every situation asking the question, *Might I be the one who is wrong?* You can still look askance at phenomenon and ideas that don't seem to make sense, but at least you won't end up falling into the trap of condemning an idea that has not-so-obvious merit simply because it doesn't fit into your possibly narrow view of the world." I then proceeded to give you an example of a situation in which being a dyed-in-the-wool, serial skeptic led you to an unfortunately short-sighted end.

It is important to note, though, that there is a flip side to this. There are situations in which people *should* be skeptical, but for whatever reason aren't. The temptation is to conclude that these people are just stupid. How could they not see the con man standing before them? This is not altogether fair (and it does seem to be a judgement, which is rarely good). The armchair psychologist will say that the reason individuals can be played is because they have inner flaws the con artist can leverage. This is probably true on a superficial level, but what analysis like that misses

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be the end of the world, or it could be the end of one age and the beginning of a *new* age. Yet I knew one good Christian family when I was younger whose father gave up his job as an engineer so that he and his brood could go out into the world and proselytizing for their faith because they saw war and famine and pestilence in the world and, because The Bible said so, were convinced from that scripture that *the end was now*.

On a little different note, I can't tell you the number of books that have been written "debunking" H.P. Blavasky, the chela who brought the idea of karma, reincarnation and, inadvertently, the Brothers to the west. Every time some crackpot researcher got a wild hare and attacked the old gal, a stalwart Theosophist would write a book to rebut the affront, but for people not in the know, who was to say what was truth? (Given all I've seen and experience, my money is on the Theosophists, but most people haven't had my experiences, so what are they to think?) In short, the written word won't always take you to the promised land.

is karma.

Above and beyond superficialities, a person's inner life is built around the world *they have created for themselves* (you are your own parent). If that world includes a willingness, for instance, to shun taking responsibility for one's actions, unthinkingly depending upon a leader or institution to guide them through life, then it would not be surprising to find karma drawing them into situations where animating that quality takes them to an uncomfortable place.[7] Life doesn't want people who follow mindlessly. Life wants people who have, through their own efforts, become whole unto themselves.

Of course, *shunning responsibility* is not the only path to a life devoid of healthy skepticism. If, for instance (again), one's world includes the willingness to take advantage of other human beings, playing on their fears or angers or insecurities (much like the con man), it is quite possible that karma might draw that individual into a situation in which skepticism for them has been turned off. This would put the individual in jeopardy of being themselves conned. Again, this isn't vapidity. It is karma generating situations which generate choices which generate consequences in the hope that the consequences will motivate inner growth.

So where do we find a lack of appropriate skepticism in today's world?

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[It's January 2, 2021 as I write this . . .]

We just had an election for the U.S. Presidency. It was the largest turnout for an election in U.S. history. With election officials throughout the country, many of whom are Republicans, adamantly maintaining that the election was fair and fraud-free, Biden won the election by seven million votes.

In a display of spectacular self-involvement and indifference to the institution of democracy in our country, defeated President Trump has responded by refusing to concede the election. Instead, he has continually voiced the belief that, in fact, he is the real winner, clogging the airways via Twitter with misinformation and completely unsubstantiated claims of

[7] The residents of Kennett, Missouri, voted overwhelmingly for Trump in the 2024 election because he said he would deport "bad guys" from our nation. Then ICE arrived and grabbed "Carol," a very sweet Hong Kong native who had been raising a family, working in the town as a waitress for twenty years, and who was very much a locals' favorite. A thought for those Trump voters: embrace a snake and sooner or later it's going to bite you.

election fraud . . . all of which his followers believe!

To add to the pandemonium, he and his minions have submitted over fifty lawsuits in the seven battleground states he lost (Pennsylvania, Wisconsin, Michigan, Nevada, Arizona, Georgia and New Mexico) none of which have been honored, even by Trump appointed judges, due to a complete non-existence of evidence.

And still we are not done. After weeks and weeks of continued, unrelenting pounding by Trump's Twitter claims of fraud (all to the delight of every dictator in the world, not to mention the Dark Side), and after judge after judge after judge (again, many of whom were Republicans) has said that there is no "there" there, we now have a group of U.S. Senators and Representative in Congress who intend to object to the counting of Electoral College votes for Joe Biden by those key states because, they claim, there is "a belief by some" that the voting was . . . you guess it . . . fraudulent . . . even though court after court after court has verified that there isn't a wisp of evidence to that effect.

And why would U.S. Senators and Representatives be doing something like that when they KNOW it isn't true? Because Trump *supporters*, the people who voted for Trump, believe it IS true (cause that's what Trump has told them), and people in Congress are terrified that if they don't appear to be supporting him in whatever ludicrous, nation-damaging fantasy he may have at a particular point in time, those Trump supporters will turn on them and they will be voted out of office.[8]

Which brings me to those seventy-million Trump supporters.

As Charlotte Alter said in an October 19, 2020 *Times* magazine article ("Things Falling Apart"), "Most Trump voters have well-articulated reasons for voting for him: he has lowered their taxes, appointed antiabortion judges, presided over a soaring stock market." But those same voters seem oblivious, again from that article, to "Trump being impeached for abuse of power, or his public mustering of white supremacists, or his tear-gassing of peaceful protesters for a photo op, or his paying less than his employees in taxes, or his declaring that he'd refuse to accept the re-

[8] Interesting, Trump's constant drumbeat about voter fraud and the need to "take back the country" led to an attempted insurrection with the storming and temporary takeover of the Capital Building by Trump supported on January 6, 2021, the day Biden was supposed to be confirmed as the new President of the United Stated (in fact, Biden WAS confirmed later in the day and early the next morning). These armed, home-grown terrorists were egged on by Trump himself in an hour-long speech he made just before their march down Pennsylvania Ave to the Capital (he is now being impeached for the act . . . the only President in our nation's history to be impeached twice . . . but, of course, he won't be convicted because the Republicans who control the Senate will protect him).

sult of the election if he lost even before the election, or his holding of a possible super-spreader (COVID related) event at the White House" . . . (not to mention the separation of children from their mothers at the border or the thousand other atrocious acts he has been responsible for in the last four years). All of which has led me on occasion to wonder, "How can I be living in a country that has so many people whose values seem to be so completely antithetical to my own?" How could anyone vote for a man who brags about *grabbing women's pussy*? Who would put a man like that in charge of ANYTHING?[9]

Apparently, seventy-millions of my countrymen see no problem there.

Again, from that *Times* article (it should be noted that the author of this piece spent three weeks interviewing people as she traveled across the battleground states of Pennsylvania, Wisconsin and Michigan). "For every two people who offered a rational and informed reason for why they were supporting Biden or Trump, there was another—almost always a Trump supporter—who offered an explanation divorced from reality." She went on to call what she was seeing "untethered reasoning," or "un-logic." This, she explained, was not stupidity. It was reason that had been warped by suspicion and misinformation engendered by Trump and his ally, Fox News.

The two most radical forms of this were 1.) the belief that the COVID-19 epidemic was a hoax and 2.) the cult-like conspiracy theory embodied in what is called Q'Anon. The more generic forms were the belief that any negative reports about the President were being proffered by lying reporters, that the virus was no worse than the flu (all of which Trump has maintained from the start),[10] and the Q'Anon conspiracy theory.

The Q'Anon conspiracy theory is particularly fascinating. It is (again quoting from the article), "the perverse delusion that Trump is the final defense against a *deep state* cabal of Democrats and Hollywood elite who

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[9] This, completely forgetting that this is the Kali Yuga, the age of iron, a time when many, many Beings who have made consistently poor choices over many lifetimes are coming into incarnation for one last shot at turning themselves around.

[10] In a January 2022 NPR report, a nurse talking about *omicron variant* COVID deaths said that they were happening almost solely to unvaccinated people. She went on to say that she started out being angry at the people, then realized they were "poor souls who had been lied to by people who knew better." Imagine being at least partially responsible for leading people to believe things that you know aren't true, that ultimately end up killing them. The karmic weight Trump and Hannity and the Fox News folks are carrying for intentionally sowing doubt in the minds of their conservative followers about the pandemic and masking and the vaccine, it has to be staggering.

traffic and rape children." It was something that kept cropping up in the reporter's conversations during her three-week sojourn. Apparently, "torturing and drinking the blood of children" was an additional part of that story . . . and by the way, we now have a woman who will be seated in this next U.S. CONGRESS who has publicly stated that she believes in Q.

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[Why so willing to accept fantasy?]

Everyone's karma is different, and everyone's karma is taking them where they need to be. So if what I said earlier about karma is true (that there are situations in which individuals have their skepticism button turned off, so to speak), what mechanisms might life employ to do that? How, in short, might someone become functionally "untethered from reality?" (Or, why is there such a large population of individuals who are skeptical to the max about our government and even our democratic institutions, but see no red flags in Trumps antics?)

One possibility is that he has promised them "things" they want (like the overturning of Roe). Another is that their predispositions (jealousy of "elites," fear that their prerogatives will be taken away from them, anger that the American dream has passed them by; being constantly broke) have made them prime targets for lies and half-truths aimed at them by unscrupulous politicians and news outlets. There is another possibility, though, that is kind of interesting. Many in our nation have a long history of incorporating *fantasy thinking* into their world.

In some cases, this is innocent. Think about all the movies and TV shows and plays that present fantastic plots that *could* happen but have a vanishingly small chance *of* happening.[11] There are tons of those around, and although they were not produced to warp the thinking of people, they kind of do by masterfully making a spectacularly improbable situation seem probable.

Along a little different track, think about the religious beliefs that are commonplace in our society. A relatively large part of our population believes in Creationism. This is not an unreasonable line of thinking for a lot of reasons (that there might be something else going on with life other than *impossibly unlikely chance* is a good starter), but then it goes and claims that Darwinism and natural selection aren't really a thing at all, and that

[11] One of my favorites is the Robert Redford, Paul Newman movie *The Sting*, and there is always the *Mission Impossible* franchise.

God created the world whole, like, 6000 years ago. That is, after all, what the Bible is purported to say, and if the Bible says it and you've embraced faith and suspended skepticism, it must be so.[12]

That said, is it any wonder that the religious-right might be taken in by a fantasy like Q'Anon even though it is an idea that spectacularly flies in the face of common sense and completely requires unthinking faith to accept (much like those literal interpretations of the Bible). After all, believers in that bit of fiction tell us unapologetically, unblinkingly, that *Hillary Clinton and friends have been running a children sex-trafficking business out of a PIZZA PARLOR in Washington DC* . . .

Where is reasonable, healthy skepticism when you need it? Certainly not in some enclaves within the U.S. And why is that so? Sadly, because people have abrogated their thinking to *people they trust* instead of thinking for themselves.

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[Where do you get your news?]

I get my news from the PBS NewsHour. I'm not feeling particularly superior about this, it's just where I go for news. I do this because I think it tries to be balanced (in some cases, irritatingly so—there's nothing like sitting through a segment listening to a Republican Senator bullshit his way through an interview). It does a certain amount of educated editorializing, and someone is obviously choosing what gets on air, but on the whole they seem to do a fairly good job of honestly and equitably covering the topics of the day.

I also listen to "The New Yorker Radio Hour" every Saturday morning, and "On the Media" on Sunday mornings, both on my local NPR station (you can also find them on-line). They have had fascinating, educational pieces on everything from the discovery and evolution of CRISPR (a technique to cut and splice whole chromosomes that can add to or disable genes in a cell), to a history of institutional racism in the United States, to a look at the eviction crisis that exists in our country today, to an inside look at the white supremacist, alt-right movement.

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[12] But you ask, what about those million-year-old fossils that have been found all over the planet? No problem. They aren't *really* that old. They were put on the earth by God to *appear* that old to test the faithful. It was sort of like God's little joke. I'm clearly not the right person to be claiming that science is the end-all, be-all (given all you've read in this book to this point), but Creationism as quoted by Christians really is beyond the pale.

Along with that, I've quietly watched and learned from both individuals and on-line seminars provided by my school, about being what the race-matters movement would call a *white ally*. And I've tried very hard to be a good soldier when it has come to things my community has deemed important (learning to use the word "they" to refer to a "she" in one of my classes was quite a challenge, but I managed it as best I could . . .).[13]

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[13] As for being a good soldier, that has not always been easy. One of the hallmarks of my existence in the Poly community (though it would have been the case no matter where I was) has been that I've found it best to keep my mouth shut whenever there have been conversations about race or women or just about anything that has had an underrepresented peoples involved in it (in fact, I ignored that advice just a week or so ago in an all-school faculty meeting and paid the price). The problems come on two fronts.

The more mundane is that I sometimes latch onto part of a premise and make a statement that is reasonable if all you are looking at is that part, but not so much if you are looking at the whole. This is an obviously embarrassing mental lapse on my part and just me being a dunderhead.

Number two is different. Due to my contact with the Brothers, I don't look at the world the way most people look at the world. That means I could make a statement about something that would be perfectly reasonable from my perspective but that would end up having me come across as being *way* out there, Cretin-like even (I mentioned this earlier). Better to just keep my mouth shut.

A really good example of this can be found in the idea of *microaggressions*. I understand that having the same tiny slight happening over and over and over again will have the same effect as the proverbial *Chinese water torture*, but from my perspective, the way this problem is being dealt with is kind of ass-backwards. A microaggression is an action that a person finds irritating or unsettling because they have become sensitized to it. When one occurs, most child-selves will do what most child-selves do, which is to say, they will focus their attention on the instigator.

The problem for me is that in my world, stuff doesn't happen for no reason. Karma draws you into experience designed to shake you awake. If you are busy looking at what an asshole the instigators is, you are missing the point, you are missing the gift karma has drawn you to see about yourself, you are missing the enlightenment that awaits you at the heart of experience.

The question people should be asking is, "What is it about the way I'm dealing with life that has brought me this experience?" Once one stops looking for answers outside the self, once one *truly* sees to the heart of the experience, the power and effect of the microaggression will evaporate like mist on a sunny day . . . except a whole lot faster.

In short, the way people approach the idea of microaggressions in this day and age is the way of the child-self. It emphasizes trying to make people *out there* stop generating them, which is not a bad idea as it's always nice to have a more thoughtful population . . . but THAT WILL NEVER HAPPEN as people will *always* manage to do stuff that irritates, even when they are trying very hard not to (just think about your interactions with your mother). So we have whole workshops at Poly wrapped around being cognizant of microaggressions and how to not generate and/or perpetuate them . . . which I support and dutifully attend and try to learn from . . . all the while thinking "but in a cosmic sense, you're kind of missing the point . . . "

This has all been to the good. If I run into something that seems dodgy, I exercise skepticism and, if I'm really interested, look more closely.

That said, a large part of the American public during Trump's first presidency (between 2016 and 2020) learned about its world from three sources: Fox News (a conservative propaganda machine pretending to be a news agency), Trump's Twitter feed, and the Internet (which acted like an echo chamber for the things the President and Fox News regularly spewed out into the world).

Fox News, or the Fox entertainment shows that are dressed up as Fox News affiliates (*Fox and Friends*, for instance) regularly ignored any news event that put Trump or his presidency in a bad light (which over the years has been a nearly daily occurrence). They've *spun* nearly beyond recognition any news event the station's conservative agenda didn't find palatable, and they highlighted and supported conspiracy theories that were wildly fanciful (the Q'Anon conspiracy being one of their finer efforts). They also, on occasion, just plain, outright lied to their viewers.[14] Yet this was where a sizable number of Americans got their news (such as it was). And as a consequence, the life and thinking of a sizable number of Americans was shaped to a large part by the accepted "truths" presented to them by that agency.

Given what the Brothers have said, this shouldn't have surprised me in the least. The United States of America is a great nation on many levels, but it has within its population a large number of Beings who have profound gaps in their moral and ethical fabric (as is common throughout the world). This is, after all, the Kali Yuga. This is a time when deeply flawed Beings are coming into incarnation. And given the fact that the Dark Side really went to town at the beginning of our nation fortifying the thoughtforms of greed and self-preferment through the vehicle of slavery, this is the time when those dissonant aspects of our national psyche are being drawn to the surface.

As a consequence, it wasn't an accident that Donald Trump was elected President. I'm not saying it was pre-ordained, but it was karmically necessary for *something* to happen to draw those aspects of our collective self into the open. He just happened to be the karmic agent that facilitated its happening.

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[14] They paid $787,000,000 as settlement to Dominion Voting Systems in the defamation case that was brought by Dominion over Fox's constant allegation that Dominion's voting machines were rigged.

And, of course, there is the Dark Side, constantly sending out thought-forms that support the selfish actions that are manifesting themselves everywhere (against which you have the quiet hand of the Brotherhood).

Yet, *way too often*, swamped by living my life in the world, I FORGET ALL OF THIS!!!

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[When to be skeptical . . .]

For every situation in which skepticism can lead you astray (the homeopathy story), a lack of skepticism can do the same (believing every word that comes out of Trump's mouth). If you are a generally good, decent person who is determined to follow a spiritual path, how do you know when to be skeptical and when not? What are the hallmarks of good choice in these cases?

This is a hard one because there is no algorithm that will take you where you want to go. There are a few things to keep in mind, though (and understand—this is not a complete list—I'm just sort of riffing here).

First, if you find yourself being motivated by fear or anger, there is something in you that is resonating with those emotions. This kind of mirroring is not always linear, but it is always (in my opinion) there. Find the *jewel in the lotus of experience*, and it will set you on a better path.

Try to understand the motives of the instigator of a situation. It wouldn't have taken much research to understand why (beyond wanting to be elected to the Presidency) Kamala Harris in 2024 said that Trump was a threat to our democracy. Likewise, it wouldn't have taken much research to learn that Mexicans coming across the borders were not primarily murders and rapists (as Trump claimed). Doing a little research will usually help as you are deciding whether to be skeptic about something or not (though you clearly have to be careful about Googling stuff, because there is everything imaginable on the Internet and that is where Google lives).

I sometimes meditate on things I'm interested in or worried about. I have found that if I have a sincere desire to understand something, my High-Mind will sometimes whisper an answer (if I have to make a decision about something, I often have a very clear picture of the situation when I awaken in the morning—if I then begin to think about it, the child-side of my rational mind can sometimes talk me out of the action suggested at awakening—I've found from experience that if I don't act on that first impulse, I go in the wrong direction).

The point is, there is unfortunately no magic bullet. You really just have to use your head when it comes to deciding the merits of something.

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[Why was this chapter included?]

As hard as this is going to believe, what started me thinking about all of this was the question, "What would it be like to live the life of a chela, and how am I stacking up in that respect?" Although that led me in several directions including a diatribe on skepticism, I still want to say something about that original query.

There is a fine line between *knowing* what is going on in the world and being *overshadowed* by what is going on in the world. Nothing I've said in the lasts eight to ten pages has been defenseless, but I've spent time on it to show how easy it is to become focused on events you have no control over.

I am way too easily angered by something Trump (for instance) has done, especially when the very next day, he does *something even more egregious*. As a corollary, it is way too easy for me to get carried away with a two-hour mock fight *in my head* with one of my school administrators about something he or she has done that I think will negatively affect my students, but that I will ultimately have no say about. It is way too easy for me to become obsessively angry (for a time, at least) at a landlord who evicts a black family of four whose only transgression is that COVID-19 has caused the father to lose his job, so the mother is working 75 hours a week to make ends meet, but still their rent is late every month (this was a news story reported just before the end of the July 31 moratorium on evictions) . . . when in fact I can do nothing about the specific incident aside from empathize.[15]

In short, I am way too easily agitated by life. I am way too prone to forget that karma exists.[16] I am way too enveloped in the minutia of my

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[15] Interestingly, Elon Musk has said, "the fundamental weakness of Western civilization is *empathy*." This, according to him, makes for manipulation. What he doesn't see is that a heartless lack of empathy is itself a manipulation by the Dark Side.

[16] Concerning karma, imagine what Trump's next life is going to be like (assuming he doesn't go straight into Aviche with death). Once in that life, imagine how you would feel, *not knowing who that Being had been*, if you found the individual experiencing a *difficult* life. You would have no idea whether you were looking at a *chela unaware* taking on hard

own little world. I am way too unwilling to "render unto Caesar that which is Caesar's."

Put a little differently, the skeptical crusader in me attaches itself to stories just like everybody else, except I know that isn't something I should be doing. I need to remember that this is a time of choosing, which for many will mean hardship, and I need to remember that many will choose poorly . . . all of which means I need to work very hard to not get caught up in things *I have no control over*.

So where is this taking me? In the run-up to this year's winter solstice, my walking meditation will be to be *more attentive to the moment* while not allowing far-flung events I have no control over to take over my thinking. If I was a chela, this would simply be expected. I'm no chela, but that doesn't mean I can't try.[17]

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times to hasten his or her spiritual growth, or someone like you or me who is giving others the gift of opportunity to help Beings in need, or someone who had caused chaos and suffering last time around. You would have no idea, which means the spiritually sane thing to do would be to treat that Being with compassion and respect in the knowledge that the Being was living the life karma deemed appropriate. This is not your excuse to do nothing, ALWAYS help out if karma will allow it. But understand, life is nowhere close to as straight forward as it often appears.

[17] It is close to the beginning of 2021, and over the last few months I've noticed something else I need to consider. It is related to something I came to know back when I first began with the Brothers. I, as is the case with everyone, live in my head. When my brain registers an event, there is a kind of echo that reverberates in my brain long after the fact. Things don't just happen, are noticed, then make way for the next thing. I mull things over. So I was on my bike yesterday, and a car honked at me in that aggressive way cars honk when the driver is stressed and is being unpleasant. I thought about that honk to the exclusion of all else for a good twenty minutes (this obviously means there was stuff for me to see in the experience that I was missing, but that's beside the point I'm trying to make here).

What is disturbing is that I've noticed lately that I tend to intentionally sabotage myself in regard to keeping a clear head by taking up my free time watching TV and Netflix. How so? When I get "into" a show or series, I find myself think about the predicaments the characters in the show have gotten themselves into *for days*.

What makes chelas different is that they don't, they can't, fill their heads with stuff like that. Their brain needs to be clear and free because they have much more important and, frankly, scary things to deal with. My brain and my self, at this point, are nowhere close to being there yet, and that is something I am not frankly happy about . . . though all of this rather nicely answers the question I started this section with, which was, "What would it be like to live the life of a chela, and how am I stacking up in that respect?"

Chapter 49

Forgetfulness and Its Fruits

[This chapter is the last of the three promised in the preamble to Chapter 47. It will talk more about me and the winter solstice and chelahood, but there is a trickiness to the presentation. It has a not-so-obvious reason for its inclusion. Read on, Macduff.]

The testing of an individual during life is something that can happen at any time. In fact, there are people whose whole life is a test. But there is this one time during a solar cycle, the winter solstice, that has energetic properties that are particularly conducive to both testing and to the setting of a tone for the cycle to come.[1]

The Brotherhood uses these energies to good avail. In fact, as the solstice approaches, high chelas who have earned the right through their actions and efforts prepare themselves, and at the solstice proceed into the inner worlds to move against the great thoughtforms of darkness that reside there, all on behalf of the whole of life. If they are successful in their "initiation," they diminish the darkness, they come out more powerful than when they went in and they proceed into the next cycle with a renewed impetus for action.

I am, for the fiftieth time, no chela. I do know stuff, though, and I am inwardly observant if not outwardly sensitive. That is, I *can't* walk into a

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[1] It is not for nothing that during the lead up to the winter solstice, the sun seems to be physically moving away from the earth. As viewed in the northern hemisphere, days get shorter with less light falling on the earth's surface, and winter deepens. *At* the winter solstice, the Sun appears to stop moving away from us, turns, and begins to move back again beginning a new cycle. These are not just observations about the physics of the planetary motion as our world orbits our star, the sun. According to the Brothers, they are linked to deeper mysteries.

On a more subjective note, let's face it, the holidays are just hectic. Sometimes it is as if they have a grudge against us, that they are charged with challenging us at every turn. This is testing. People have even unconsciously acknowledged the *coming out the other end a better person* with the idea of the New Year's Resolution.

(. . . Of course, people will say the holidays are hectic *because* they are the holidays, and if they didn't exist, year's end would be no different than any other time. That is not something the Brothers would ascribe to.)

forest and see the nature spirits that reside there, being (presumably) too focused into the *psychological world* that is my life. But I can register the palpable *change in tone* that comes when I leave being bathed in the benevolence of the devas of a forest and move back into a place where that is absent, like the tone-caking circumstances of what we call a city. Some might say this is just me noticing that the city is hubbub and a forest is not, but that's not it. (I talked about this kind of thing in Chapter 20 when I noted how the tone of Sienna, Italy was different than the tone of Pasadena, California, and that I could see by the comparison it had to do with the thickness and intensity of thoughtforms that had, through the centuries, been "painted onto the walls" of European cities, versus the rather sparse "painting" that existed in "the new world." It wasn't the states that caught my eye, it was the *juxtaposition* of the two states as I transitioned from the one to the other that caught my attention. It is the same thing here.)

I'm pointing this out because during the run-up to the winter solstice, when there is an intensification of the inner, karmic prodding that is designed to spur humans forward along their spiritual path, I have never sensed those energies directly as they are happening but have *felt the change* when they have receded after the solstice.

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[The mind of a chela . . .]

It is the end-months of 2021. I have again found myself thinking about what the inner life of a chela must be like, and what it would be like if I was actually accepted into their ranks. I have also done some thinking about what one might do to prepare for that possibility (not that I am hoping . . . still . . .). What came screamingly out at me as I did this was how important it is for a chela to be able to *live in the moment* without obstruction . . . [2]

[2] This is one of those really tiny things . . . that is big (the footnote is being inserted in March of 2024). I've been doing a simple meditation every morning for the last several months. I consciously take one slow breath. As I do, I recognize and greet the atoms and the energy that rides on them (in Sanskrit, the energy is called *prana*—the fourth limb of yoga honors that energy being called pranayama). I do this three times in a row every morning (in Volume 1, I talked about doing a similar discipline earlier in my life).

This life-energy is doing its duty, and it does it without respite. There is no time when it lapses; I never take a breath when it doesn't support me . . . ever. A chela's existence is like that. There is never a time when duty is set aside. It is non-stop. (It's funny how this parallels the life of a good parent—taking care of a child is never-ending while it is

Under normal conditions, this is not me. When I am not thinking about my classes and labs and tests, I spend way too much time filling the space in my head with the fruits of watching TV, or streaming on Netflix or HBO Max or Amazon Prime, or even reading good romance or fantasy fiction novels (not that I would begrudge those enterprises to anyone else). I too often create, then immerse myself into mental activity that is relaxing and a wee bit titillating and quite lovely, but that is not connected to reality.[3] I can watch a particularly sweet rom-com (or zom-rom-coms, even—I particularly liked *Warm Bodies*), for instance, and then spend the next several days going over the ins-and-outs of the story whenever I don't have something to mentally focus on. I savor the fun of it . . . just as though I was reflecting on a real occurrence. And it is the same with books of epic or magical fantasy fiction. I get into them, and once involved I spend my

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happening . . . except with a chela, that kind of devotion is exercised forever . . . literally.)

From a little different angle, over the last few years, I've used my bike-ride to school to focus myself. Lately, I've been drifting. Given what's at stake, a chela can never drift. We are talking lifetimes of moment-to-moment focus.

There is a part of me that wants to live the chela life. There is a part of me that isn't sure it can hold the discipline. I guess I'll see where this leads me. It would be sad if I wasn't able to continue forward due to weakness of spirit. It would be sad to fail.

[3] A really nice dramatization of someone being drawn into unreality was presented in the Netflix sci-fi fantasy drama *The Witcher*. In the finale of the second season, one of the female protagonists (Seri) is overshadowed by the spirit of an evil elven witch. The last fifteen minutes of the show has Seri completely oblivious to what is happening in the real world as her body, controlled by the witch, is doing battle with her fellow protagonists, the Witcher and his companions. In her mind during this battle, she is enveloped in a fantasy that has her attending a fine ball in the ballroom of her palace (which, in real life, she had been forced to flee due to an invasion). She is dancing gaily; she is spending time talking to her beloved grandmother (who in real life had died during the invasion) who had raised her after her parents prematurely died, except there they are, her parents, who she dearly loved and missed, in the flesh. It is all so wondrous. She is so happy . . . and yet none of it is real. The presentation of the dream-state she is experiencing while her actions in the real world are going unnoticed by her self *because* she is so engulfed by this fantasy world, is so powerful, she nearly isn't able to fight her way out of it.

How this reflects in me is that I don't have trouble extricating myself from my daydreams, but I do if I don't notice I'm in them . . . which is to say, if I am not being attentive to the moment.

And as a peripheral sidenote, this idea of fighting your way out of a seductive, illusory, mental world reminded me a little of Ramakrishna's rebuke to a follower who wanted to meditate into the bliss states that exist in the inner worlds, just to see them (I talked about this in Volume 1). He, himself, had done this during a meditation that span six continuous months, and was nearly unable to pull himself from the bliss. The mind *can* link itself to fascinating, living thoughtforms in the inner worlds. In this day and age, most slip into and out of lesser but similar situations without even noticing . . . it just takes not being very inwardly aware.

free time recreating the scenes in my mind and reliving their tensions and drama and dialogue.[4]

Mind you. I don't do this intentionally. It just seems to be what my mind does when it's bored, which is often.

This is not something a chela can afford to do. Chelas lives in the moment. And to do that, they can't be mentally spread out all over the continent. As such, I would be very surprised to find that chelas read escapist fiction or watch television or movies. I would be surprised if they submitted their brain to the active spinning-of-thought-forms that, impressed on the mind, would pull them away from *being here now.*

In short, I would be surprised if they dealt with life the way I have been dealing with life.[5]

The bottom line is that I spent time leading up to the solstice this year trying to animate a life in which my mind was free of all of that "stuff." For about a week, I was successful, sort of. I was able to clear my thinking fairly effectively for small periods of time (usually when riding to school on my bike, which is prime time for day dreaming, or when riding home), and I was more thoughtful about the kinds of entertainment I utilized when I was trying to "relax."

But what was really interesting was that around December 22, after the solstice, there was a decided diminishing in the pressures I had been feeling in the run-up to the solstice. It showed itself in a lessening of the sharpness of my brain when it came to focusing on all of this (words doing a miserable job to express what it actually felt like). And when I came out of the overall experience, I was a little disappointed in myself. I didn't feel

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[4] . . . And for those of you who think I have lost my marbles, THIS IS NOT UNCOMMON. I remember walking into my first-period class ten minutes early one day toward the beginning of my tenure at Poly to find three girls, sitting around talking. As I walked through the door, one of the girls said, "And she is such a slut . . . " I was hardly horrified, but I did think I had walked into the middle of a private, personal conversation that was most probably none of my business. Not so! The girls were talking about the "Beverly Hills 90210" episode they had seen the night before. They were talking about a fricking soap opera as though it was real life. They were emotionally invested, which is exactly what the creators of the TV drama were hoping for, and exactly how thoughtforms work in the mind.

[5] Don't get me wrong, there are times when being enveloped in thought is a good thing. When I'm writing, that is how I focus into the ideas I want to present. And when I am working on a physics problem or something I'm untangling in writing, being able to draw the parts of the difficulty around me in a calm, reasoning way, can be very helpful. The snag comes when I don't have anything consequential on my mind. Then I just float, and in doing so I lose track of reality. What I ought to be doing in those times is being selective as to what I'm thinking about. More to the point, I don't believe chelas float.

as though I had done enough, which meant I didn't come out on the other side with as much to work with for the coming year.[6]

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[An aside . . .]

Again, registering that what I had to work with *after the solstice* was directly related to the effort I put in *before the solstice* was something I saw only by juxtaposition. Several years ago, for instance, when I finally decided to deal with the sexual energies in a more definitive way, I held a two-month long walking meditation starting around the beginning of November in an attempt to keep my mind clear of those thoughtforms. It wasn't until after the solstice that the pressures I had been dealing with just kind of melted away, and there I was, sitting in the middle of a mind-set I had generated from the effort. It was palpable, noticeable. It was as though life was saying, "You earned the right not to be harassed by these things, you've set (against the pressure of the time) the thoughtforms needed to do that, now move into the new year and use what you've earned."[7]

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[So what makes this chapter different from the last two chapters.]

It was Christmas day, 2021, when I wrote this chapter. You might wonder how I managed to talk myself into thinking that writing again

[6] This, I'm afraid, has a very real parallel with lifetimes of experience. The only time one has to make huge jumps of learning is when one is in a body, dealing with *existence in matter*. When your body dies and you move into the inner worlds, you are where you are and you can no longer really move substantially in a spiritual sense along that path. So if you have had opportunities during a lifetime, and you've squandered them, it is natural for the Being to feel the failure, sometimes deeply, and it isn't surprising if the individual brings that feeling back with them into their next life. If you are knocking at the door of chelahood, it isn't as though you only get one try at being around the Brothers. But karma does seem to generate lifetimes when the spirituality of one's path crescendos, and if one doesn't take advantage of that opportunity because one's child/personal self is too taken up with itself, well, I would imagine the let-down at the failure would be intense.

[7] In reading it expressed like this, it sounds as though anyone could take up a similar meditation at any time and generate a similar mindset, but what I noticed was that the energy to do what I did just wasn't there after the first of the year. That was what was so interesting. In a very subtle way, what I really noticed were the energetics receding.

about stuff I'd already written about a few years earlier (the previous two chapters) would be a good idea. Well, let me just tell you (in my own roundabout way) . . .

It wasn't uncommon during my early E.Phil gatherings for some intrepid soul to say, "I don't remember having earlier lives. If reincarnation exists but I can't remember those past lives, then what good is it?"

I was always happy when students would ask questions like that. It was, after all, them being thoughtful. It also gave me the chance to talk to them about *forgetfulness*.

Much of western psychotherapy is predicated on the belief that things that have happened to you in the past *that you don't remember* have nevertheless affected you, making you who you are "today." Psychotherapy is all about dredged up and looked at those events so as to understand your situation in the here and now.

Western psychology is additionally predicated on the idea that *you only go around once*, so those happenings have to be based in this lifetime. But if, as the Brothers have said, you are not your body but, rather, a Being using a physical form as a vehicle for experience, then there must be a mechanism that allows you, the Being, to move from being focused in the inner world to being focused into a body. That is what incarnation is, a temporarily *becoming one with a body* starting with the formation of the body in the womb.

Going on the assumption that that mechanism exists, there would be no reason why it couldn't be used more than once. That is what re-incarnation is. And if *that* is the case, there is no reason why those *formative happenings* that psychologists believe "affect who you are" could not have their roots in past lives.[8]

This brings us to another interesting observation (at least if you go along with the idea of karma as a teacher . . . and as an interesting side point, the Brothers often referred to *the karmic law* as *the TEACHING law*). One of the most powerful tools at karma's disposal is the human quality of *forgetfulness*.

As I've pointed out several times, the whole purpose of this place (and the primary focus of karma) is for Beings, you and me, to learn to skillfully *exist in matter* in a spiritual sense. A being like a Christ, wielding the power that is characteristic of an Avatar, could certainly have swamped all of humankind with thoughtforms of lovingness and kindness and gentle-

[8] This is the premise and guiding light behind *Transpersonal Psychology*.

ness, and being so swamped, everyone would have lived a kumbaya life. But that isn't what this place is about. An Awareness (a Being) needs to become "good," but not because It has been made to be so by an outside agent. An Awareness needs to become "good" because It has, through experience, come to a point where that is the way It *wants* to be, has come to the point where the only way It *can* act is in goodness.

Some people spend whole lives being drawn into the same situation where they make the same, sometimes disastrous choice over and over and over again. And unless it is pointed out to them, they never really notice the trend. Why? Because built into the human complex is *forgetfulness*. It is this nature that allows karma, having found a pathway that has the potential for enlightenment, to utilize that pathway again and again until the individual, through their freedom to choose, finally (hopefully) "gets it."[9]

Forgetfulness! It is one of the more powerful tools available to karma as it moves to shake awake Beings like you me spiritually.[10] It was why those dreams I had about unlockable doors never came to mind, even though they nicely animated my inattentiveness and inability to keep from being swamped by random thoughtforms. I needed to come to those conclusions still again, so remembrance of the events I'd drawn on previously needed to be out of sight . . . which is what forgetfulness does for you.

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[9] I used to give my E.Phil classes the following example for this: One of my fraternity brothers at ASU was what we used to call "a face man." He very much wanted a girlfriend, but he also refused to go out with any girl who wasn't absolutely beautiful as well as "socially acceptable." Being the handsome lad he was, he never had trouble getting dates. The problem was that his somewhat superficial criterion for acceptability always landed him an alpha female who was gorgeous but not a very nice person. He would be happy with her for a month or two whereupon she would begin to show her true colors. For the next six month, she would make his life miserable before their inevitable, devastating break-up. He would hurt for a month or two, then completely forgetting any *moral to the story* his previous experience might have afforded him, he would go out and find another girl of the same ilk. And with that, he would relive the entire scenario again. He did this over and over and over again during the time I knew him. It never seemed to dawn on him that what he was doing was wrongheaded. So forgetfulness kept doing its job and karma kept banging away at him, and I presume that sooner or later he figured out that, indeed, beauty is only skin deep and if you want a meaningful relationship, depending upon the outward, shallow hallmarks of a pedigree and social standing and beauty are not reasonable characteristics to depend upon.

[10] The principle, in a metaphysical sense, may also explain why people don't remember past lives, though I suspect there are all sorts of other good reasons why that might be the case.

[Which brings us to one last question: Why am I thinking about this?]

As I said above, I wrote the main parts of the previous two chapters, maybe, two years ago. The little enlightenments I was drawn to at the time of writing were real for me, and the conclusions I drew about myself and life in general at the time were profound. So like a coral reef building itself layer by layer, I grew . . . but I wasn't done.

I know this because a few months ago when I began thinking about the *energies* and *thoughtforms* that run at this time of year (i.e., around the winter solstice), and how that effects humankind in general and the Brotherhood and chelas in particular, not a single word of what I wrote two years earlier was on my mind. I had completely forgotten about those chapters.

Forgetfulness! I think that idea was something I was supposed to say something about, hence *the why* of this chapter.[11]

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[Addendum: I realize that this chapter was all about forgetfulness and remembrance, but it is close to the end of 2023 and another relevant topic has popped into my head. It follows.]

As I pointed out earlier, the *winter solstice* is a time of testing. At the end of each of the last few years, there has been *something* I've realized I needed to focus on in the run-up to that time, and I've been fortunate in that I've been able to make my small-self do whatever that walking meditation was on a fairly regular basis. I've wondered what my meditation was going to be for this year (it's now November 22, 2023). I know now. A little preamble is required (what a surprise, eh?).

[11] When a Being gets to a point where there is no longer the need for karma to use this tool (we are probably talking *very* high chelas here), forgetfulness will vanish and the Being will have full remembrance of his or her life and lives. Why doesn't this happen for you and me? Aside from the need for this *repeating of experience* characteristic I've been talking about, it is due to the karmic need to protect you and me as Beings. Most people accumulate regrets during "this life" the way squirrels acquire nuts. By the time they die, the weight can seem unbearable. Imagine what it would be like to come into a body at birth with full remembrance of all the things you've messed up over ALL your lifetimes. If you were normal, it would crush you before you even got started. High chelas have the wisdom needed to be able to deal with all of this, so it is as if they don't have that kind of baggage. The point is, there will come a time in each Being's spiritual path when having full remembrance of all past lives will be appropriate, and when that time comes, it will happen. It is just that at this point along humanity's path, it is a very select few who have earned the right to have the limitation of forgetfulness lifted.

Karmically, the Brothers don't have the necessity to endure the kind of tussle and tearing you and I experience as far as both our psyche and body goes, which means the body of a Master doesn't age in the same way as does your body or mine. They occasionally move around in the world, though, and when they do they are buffeted by the wants and desires and selfishnesses and peccadillos of us normal folk. As a consequence, they do spend periods of time in deep meditation during which their body can heal and rejuvenate. So again, they don't age as we do. In short, they get a lot of mileage out of the form they take on, hundreds of years-worth (remember the chela who said his body was *like a pile of old leaves, ready to be blown away by the next stiff breeze?*—this, I suspect, was a chela who was well into his hundreds).

I point this out because over the last few years, I've had this constant whisper in the back of my head to the effect that dying would be a good thing for me to do (not suicide, mind you, just dying naturally). Indeed, it would make the lives of a number of my friends somewhat easier as I will be leaving them money. And there will be people, at least a few, who will finally have the opportunity to read my autobiography, which I think may be kind of a big deal for them. And because there is nobody I am attached to who I feel responsible for (no girlfriend or wife or children), and because my main thrust over the last several years has been to complete the book (which is now done), I'm having trouble seeing why life is keeping me around.

What's more, like many, my small-self has been looking at the world: the war in Gaza; the war in Ukraine; the millions of people world-wide who are displace due to war and famine and corruption; the anti-democracy movement in the U.S.; Trump; the gun problem; the arrogance and insensitivity animated by the people who fought to overturn Roe; climate change; you know, all the shit that has been coming down over the last few years. What has been disheartening is knowing there is nothing I can do to affect any of it. I could protest. Republican Congressmen whose districts are other than mine would be happy to have me expend all my energy marching, but they aren't going to care because I'm not a voter in their jurisdiction. I have done what I was supposed to do (I've done my duty), having written the autobiography, so what more is there for me to do?

That was the question underlying my thoughts about possible death. Then it hit me. I'm not a chela, but if I was, I would wring every moment out of my time in this body to do whatever work I could do that was useful. I cannot change the thinking of politicians whose selfish, possibly dark

intent is to cause havoc in our world, but I CAN affect the human beings I personally come into contact with. Karma has never allowed me to only half-exploit situations in my life. How dumb of me to think that it would cut me loose from this body when there is so much more I might do in a one-on-one sense (and, too, there is so much more that I have to learn about myself [12]).

Chelas stay in their situation for as long as they can. I need to appreciate the time I have. I need to use every moment well. So the meditation I will carry going into this year's winter solstice will be to SEE every individual I come into contact with, and to give gratitude to them for their efforts (even if they seem to be failing) along with as deep a blessing as I can muster.

And once again, forgetfulness has struck, because all of this is what I concluded a few chapters back. Ain't karma a kick in the pants.[13]

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[12] I found myself recently in a situation in which people at school made some decisions that had the potential of making my job harder than it need be. What's more, the decisions were made to make *their* job easier, so what the hell!

When something happens that affects me personally like this, my inclination is to try to fix the problem, often by confronting the individual(s) who created the problem. This rarely works without creating still more problems.

Everyone has tiny little selfishnesses that somewhat direct their lives, so how would a chela deal with this? What finally became clear is that yes, everyone is self-involved to some extent (myself included), and that means there are going to be times when those predilections are going to collide with me. Talking to people civilly is one way to go, but sooner or later I'm going to have to be willing to afford people the latitude to deal with life without coercion from me. I need to accept that if their actions aren't right, karma will draw them into teaching situations in which they will, hopefully, learn.

In other words, I have to stop trying to control the world with a tightened fist, especially when I don't have any real agency in a situation. I have to open the fist and let people breathe. That lovingness is going to have a considerably more powerful effect on those people than will confrontation. I need to remember that.

[13] It's the end of 2024, one year after I wrote most of the chapter you just read, and true to form, all of the stuff I wrote then has seemingly exited from my head and my "new" solstice meditation for this year has been to *see* people more clearly and completely. Yes, that's almost exactly what I did last year, so *forgetfulness* has struck again, but that's been good because there were things I didn't notice in the previous effort that were and are kind of important.

As before, this time around has been to try to ignore the superficial stuff (is this a pretty woman; is this an old man) to get a feel for what's going on underneath the surface, even for people I literally just walk past. This has the potential of being invasive, but I'm not very good at it and my primary goal has been to give individuals a blessing as I've sensed what their world is really about (so not so bad). What's been bizarre is that when I set my mind to doing this, everything is fine and I'm completely together until I actually have to

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[One last story . . .]

I know this chapter is really about *forgetfulness*, but I have also been talking about how amazing chelas are as human beings. At one point, I wondered if I had said enough. Then this happened . . .

I ride my bike everywhere, almost always on the sidewalk (cause who'd want to joust with cars on the street?). That means I sometime encounter pedestrians using the sidewalk themselves. I am usually deferential—it is their space, after all—but today was a little different. I had

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deal with people. Then I completely lose the thread and flow back into my normal self. I am pleasant and agreeable most of the time, but if someone does something that tweaks me, then not so much.

A good example of all of this happened several days ago when I went to Trader Joe's. Before going in, while sitting in the car, I set the tone of being observant and meditative. But as soon as I entered the store and began running into people, all that went out the window and I became my old self. Everything was fine until I got to the checkout stand. Unfortunately, the check-out girl was more interesting in chatting up the customer ahead of me than checking the woman out, so I had to wait two to three time longer than would have reasonably been expected. I was not amused and more or less let the checker know about it by being "short" with her when I finally got to the register.

The fascinating part was that when I got back to my car, it dawned on me what had happened. What I had set out to do was completely swamped by being around people, so what the hell? Am I that lame?

What finally became evident was that I had been approaching this from the wrong direction. I had been sitting up on my mountain, look down at the peasants. What I'd forgotten was that I *was* one of the peasants.

Just like everyone, there is *a tone* I carry around with me. It embodies and reflects all the karmic necessities that are important to who I am and where I am going as a Being. When I come into contact with another, there is a delicate dance that happens between my tone and their tone (sometimes this becomes evident as we talk to one another, but even with no talking, the intermingling of tones is there).

In other words, it is not just me, watching from a distance. I am a part of the play.

Where does this leave me? It is important that I be as attentive to the moment as I can be, and as loving as I can be, and as observant as I can be. I am, after all, trying to build into myself an instinctual predisposition to all of those things. But because I'm not there yet, I shouldn't be surprised when karma doesn't let me sit comfortably in my own little bubble. I am an active participant within the whole. I'm still a work in progress.

And as a minor note, this has been another of those situations in which the juxtaposition between two states—me trying to be *aloofly attentive to the moment* and me actually having to *interact with people*—has led to insights I wouldn't have had otherwise. *Juxtaposition*, it really has been my friend over the years.

just left Poly on my bike riding up Wilson, and as I crossed the street at California getting ready to use the little curb-ramp to get myself back up onto the sidewalk, I realized there was a guy walking away from me just a ways ahead who was going to be in my way. He was only going to be in the way momentarily, but for just a flash, it irritated me. I was going to need to thread my way around this guy, and that very minor inconvenience elicited just a wisp of anger. And when it happened, it reminded me of a story the Brothers once told us (how's that for off-the-wall?).

Hundreds of years ago in India, there was a man who seemed to be the definition of goodness (he was, in fact, probably a chela-unaware at the time). He was kind and thoughtful and giving and a genuinely nice human being. Sometime in his mid-twenties, he decided he needed to find someone greater than himself to act as a spiritual guide, a Teacher. There was one such man, maybe, two-hundred miles from this fellow's small village, so he set out on foot and walked to the ashram of this Teacher. His hope was that the Teacher might accept him as his student.

When the man arrived, he was greeted cordially as though the Teacher was expecting him. Invited in to sit and talk, the Teacher spent twenty-minutes rhapsodizing about all he had heard about the man, his honor, his honesty, his good works, his life in general. The man was feeling very comfortable. At the end of the interview, the teacher stood up, the man stood up, and without the slightest warning, the Teacher slapped the man with an open hand right across the face with enough force to knock him to the ground. And all the while, the Teacher watched.

If, within the man's aura, the Teacher had seen the slightest hint of anger at the attack, or just a flash of inclination to retaliate, that would have been the end of it. But that isn't what he saw. The man's very first response was one of lovingness. Seeing this, the Teacher simply said, "Accepted."

This was clearly a pretty severe test, and because the man was who he was, he passed it. So there I was, riding my bike home, becoming agitated (even though it was truly momentary) because someone was unconsciously blocking my way slightly on the sidewalk. Now you can see how I know I am no chela, even though at some time along my spiritual path I know I, and most probably you, *will* be.

Chelas really are something else.

Chapter 50

From the Brothers

[The last three chapters have been a unit of sorts unto itself. They have, among other things, talked about the winter solstice and how I have dealt with it, about chelahood, about forgetfulness and about skepticism. To animate that last topic, I talked about the ills of the world. There was one other thing I wanted to include at the end of one of those chapters, but I couldn't see an easy way to do it so I'm devoting an entire new chapter, this chapter, to that end. It will be short, but it will finish with something very powerful from the Brothers.]

It is April, 2023, several years after most of the previous chapters were written, and we still have dictators who are callously, selfishly making the lives of their people miserable. Megalomaniacs are still waging wars. Nationalism and white supremacy are still on the rise. Religious fanatics are still prosecuting wars in the name of their particular God. The Brazilian rainforest is still being cut down. Unconscionably cruel men are still clubbing baby Harp seals into unconsciousness so their soft, thick fur can be cut away from them *while the babies are still alive*. Poachers are still killing elephants for their tusk. Gerrymandering is still grotesquely twisting our political scene. Evangelical Christians are still supporting Trump. Immigrants are still being vilified. Whites are still holding feverishly to their privilege, all the while claiming that it doesn't exist. Bankers are still wheeling and dealing, undeterred by the millions of Americans who lost their homes after the last financial meltdown caused by banking schemes in 2008. Our younger brothers are still being treated cruelly.[1] Trump, a man who lies pathologically, still denies he lost the

[1] One example: Factory farming that removes baby calves from their mothers within hours of their birth so that a maternal bond is not forged. How the calves are forced to exist in windowless enclosures so small the animals are not able to lie down, sometimes never seeing the sun for their entire lives. How the animals are fed iron-deficient feed so that their flesh will have that eerie, pale pallor characteristic of veal, creating the necessity to put them in stalls that do not use iron nails because the animals so crave iron, they will chew on steel nails if they can get to them . . . all because humans have decided they like the taste of their flesh.

last election and still curries favor with the alt-right and Neo-Nazis in our country, and stills acts on impulse almost as though he is overshadowed. Our Supreme Court, which houses two accused sexual predators, is wildly out of balance. Landlords are still evicting hard working people at the drop of a hat. Millionaires and billionaires are still secure in the belief that the Congressmen and Senators they have bought will pass laws that will keep them and their riches safe. Republican governors are still refusing to expand Medicaid, thereby denying the less fortunate in their jurisdiction the possibility of healthcare. There are still over 70,000,000 people in our country who think Trump was a good fit to be President for a second term. There are still Congressional sycophants who support Trump no matter what he does or says. There are still politicians who tell people untruths (don't get a COVID vaccine), knowing their actions will cause the death of tens or even hundreds-of-thousands of Americans. The Religious Right is still working to force women into having babies, even when it is not safe for the women to do so. Money men (and women) are still scheming to separate you from your shekels. Global warming is accelerating. Massive droughts are happening. There are super forest-fires all over the world. Enormous sections of the Artic ice shelf have broken off into the sea and humungous tornado and hurricanes have become standard fare. Giant corporations (specifically oil companies) are still chasing the almighty dollar while the companies that produce our food are still price gouging under the guise of covering costs from the pandemic. Government officials are still unwilling to make the hard choices necessary to reverse the global warming trend because they fear that if they do and economic hardship follows, their short-sighted constituents will vote them out of office (choosing instead rival politicians who panders to that short-sightedness—can you spell TRUMPIANS?). The Sudan is on fire, and Putin is still waging war in Ukraine.

There are certainly good people in the world today (I mentioned this earlier), trying to neutralize all the shit our politics and greed and self-preferment has engendered, but I needed to list at least some of the outrages above because I needed to set the stage for what I'm about to present.

How so? At one point during my time with the Brothers, they told us that it was possible for an evolution to *fail*, that *we* could fail as a collective, spiritual body. And given all that's going on today, I have wondered if that isn't where we were going.

What struck me shortly after that last thought crossed my mind, though, was that the Brothers also told us that there are sixty-billion Be-

ings at the human level in the inner and outer worlds. In other words, only a small portion of the overall mass of Beings associated with humanhood are in bodies right now (eight billion, or a little over ten percent), so all the bad actors we are seeing in the world today hardly represent a quorum.

Then I got to talking to one of my compatriots, Cathy, about all of this, and she injected something into the mix that wasn't a part of my original thinking. She had, for years, been reading transcript of the Brothers' lessons. Just the day before our conversation, she had finished reading the March 11, 1993 lesson (this was from one of the public meetings—Morya was talking). As often happened, someone in the audience during the question-and-answer period asked where the Teacher was and what he was doing. Morya said he was in Egypt with several of his chelas and others of the Brotherhood. They were there to aid in protecting one of the Great Meditators that has existed there since ancient times. This great Being was under attack from the Dark Side. Morya proceeded to say a little more about that Meditator, which kind of hit a nerve for me. I'm presenting the question/answer progression below. Anything I add will be included in parenthesis:

> *Question from the audience:* About the Great Meditator coming under attack and needing protection. I feel inadequate. I feel like a useless relic in this crazy age where my contributions aren't being valued, where even the greatest of the Meditators is in need of help.
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> *Answer:* I would say that that is a very defeatist attitude. Let me tell you what *defeats* that attitude. To have gratitude for the things you have, for your body and mind and its power to think and to choose, and for even the smallest thing that is around you, and for the things that serve you both animate and inanimate, and for the sun that shines upon you, and for the kingdoms that support you, and for the Divine Mind that gives you coherence in being, and joy.
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> The Meditator is holding these energies to protect and help to heal the minds that cannot see clearly. He is the one who gathers up the energies of the karmas of peoples' choosing and animates the best of it. He holds it steady so it cannot be destroyed by the negativity of the lesser. He is constantly sending thoughts of compassion and love to combat the insanity of our personal minds that have run

away with us, and to open the channels to the true High Mind again. He combats the force fields that are sent by the Negative Bothers who are part of the Divine Mind. They are the negative teachers even though they resent that fact. But they cannot help being that, and so that is also something that he guards against with all of his great compassionate power. He does not regard them as evil. He regards them as those who have lost their way. But in that losing and going into the negative side they have become, as I said, negative teachers.

. . . (Talking about Beings who might be in a position to effect outward change.) Do not fear. There are many good Beings. And many of them are going to be wakening more due to the terrors of the awful choosing that is going on. They will see it and will see how wrong it is, and they will make efforts to understand and to do something to mitigate it. It is a very terrible time, but the flow of embodiment will go on and these people will come back fairly quickly to learn better. The ones with good motivations will come, and the negative ones will come back perhaps having had some very difficult situations on the other levels (most likely having been trapped in the lower astral during their in-between time, instead of going into the heaven-like devachan states), which has awakened them to some extent.

. . . (As for adjusting one's perspective.) Just because you only know the earth, or only remember the earth, doesn't mean there are not infinite teaching places. Do not let a little space of time deter you, but think clearly and with gratitude, and think how wonderful it is that you have a power that can perhaps come to help other minds. Sometimes only a few words reach the spirit. And when those words are heard, as they sometimes are, everything changes. So say the best thing you can and you will be sending a stream of energy into life that is worthwhile, and it will work. Don't say, "When will it work?" Know that it will. (And don't forget, what you send out that is good will be taken up and used by that Meditator.)

Question from the audience: How hard it must be for you to watch humanity go downhill. Does it ever occur to

you that you are fighting a losing battle?

Answer: Of course not. That is a very small point of view. Let me say something to you. You have heard me and others of my Brothers speak about the Prince who was about to go into Nirvana, haven't you? And about the little dog who was at his feet? (I recounted this story in Volume 1 but couldn't remember at the time where it came from—apparently, it came from here.[2]) And as the Prince was about to put his foot into that state of joy, he heard his little dog whimper. With that step, the little dog would be left alone. The Prince realized that he could not be happy while his pup had not yet fulfilled his understanding. So he removed his foot, and he went down into life again. And then he understood, only then, how happy he was. He did not need Nirvana. It was everywhere when he served the Law.

You are always looking for some reward, and that is a sad thing. We search out the idea of bliss; look how people meditate for bliss. Bliss is not a thing to be searched for. It comes when we serve the Law and love well, and pay attention as much as we can to the fact that we do no harm and keep our attention steady, that we have served the Law in every small and great thing. We become truly happy then. It does not matter what the circumstances are around us. We work with this place without fear and in lovingness. That is the teaching of this plane.

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[And where does this take me?]

Having read the lesson, a few things struck me. First, I have spent way too much time concentrating on "the awful choosing that is going on," and I have done that because while I have been watching the news, I haven't been mindful. And in that, I have missed the point.

While in a body, every Being has a sphere of influence that he or she has agency over. My sphere is very small. I need to spend more time fo-

[2] Although this is not a part of the classic story as far as I know, he may have been talking about Prince Siddhartha Gautama, the man who would become known as *the Buddha*. Then again, I suspect there are all sorts of things about the Buddha that I don't know.

cused on how I act within that sphere of influence. If I do well, my actions will ring true out beyond my sphere and my presence will be a blessing to those around me. If I don't do well, my actions will ring false and I will "raise dust in my passing." That isn't something I want to do. I need to do well. I need to be better.

Second, because I have focused on "the awful choosing . . . ,", I have not put much energy into applauding the alternative. Gandhi, for one, practicing ahimsa (the ethical principal of not causing harm to other living beings), took on the entire British empire . . . and won. Was he normal? Probably not. I suspect in Gandhi you were seeing a chela unaware, a Being who, through his efforts over many lifetimes, would be close to karma-free if he had chosen to spend his life in solitude in a cave. But that wasn't who he was. He was someone who was deeply loving in his response to life. Certainly, this was a life worth noticing. And I am reminded of the Brother's story about the Hindu holy man, certainly a chela, who walked into a blood-thirsty mob of hysterical, rampaging Moslems during India's transition from British rule, and made, by the very nature of his Being, that horde human-again, turning them from a desire to kill to peacefulness . . . all as a consequence, merely, of the overwhelming power of his kindness and presence.

Because we don't see Beings like that in our personal, everyday life does not mean they do not or have not existed, and it doesn't mean we cannot with effort become like them.

And lastly, as for that Great Meditator in Egypt who takes every act of selflessness and kindness and goodness that you and I animate in the world and holds the energy of those acts steady so that the Dark Side cannot swamp them out of existence, I've noticed lately that when I have decisions to make, I think about whether that Being of Power can support what I'm doing. It hasn't exactly become a walking meditation, but that thought has still been at the back of my thinking.

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[And one other thing, very off-the-wall . . .]

In the transcript I was reading (the one that documented the question-and-answer period I talked about), when Morya was asked where he was, he said he was in the Queen's chamber of the Great Pyramid. Asked why there, he said, "It is one of the places built in this magnificent building that was originally impregnated with salt which protects against negative

energies, and I did not want to have to use my own energies to keep from being interfered with."

The questioner followed up asking, "It's protected with salt?"

Morya replied, "Yes, at one time its walls were lined with salt. And that was where the candidates went to meditate and that helped to protect somewhat from the attacks of the negative forces that would try to disturb them. The salt (or its energetics) is still there within the wall."

I have known about this salt-impregnation situation in the pyramid for ages but had forgotten where I'd gotten the information. It came, apparently, from this 1993 gathering. Kind of amazing, finding that out thirty-years later.[3]

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[3] Each of the individuals in our group had a unique set of circumstances that brought them to Kay and the Brothers. Mine was through my mom and her *the bad guys* episode. Cathy's also had to do with her mother, and it also had *salt* involved (which is why you are reading about it here).

Through a series of serendipitous events somewhere around 1965, Cathy's mother was invited by a friend to attend a meeting with Kay and the Brothers. She was blown away by the experience. Because she couldn't attend the "next meeting," she asked Cathy go in her place. Even though Cathy was married with two children, she had lived a fairly protected life. The chances she would be caught dead driving alone across the whole of Los Angeles at night to a meeting with a woman she didn't know at a house owned by people she only knew through her mother were wildly improbable, but for some reason she felt perfectly comfortable doing it. When she got to the meeting, her reaction to Kay and the Brothers was similar to mine . . . it was like nothing she had ever experienced. That was when Cathy met Kay. It was evident from the start the two had a very strong karmic connection (I spoke to that connection in Volume 1).

Cathy's father had started what would become the sixth largest life insurance company in the country (which is to say, they had money). They lived on a one-acre plot up in the hills of Montecito. This was a very affluent, unincorporated area east of the city of Santa Barbara. I'm not sure if they built their home there or bought a house already built, but their property had a lot next door that was for sale for a song. Cathy, who was in the process of getting a divorce, sold her South Pasadena home and bought the land whereupon she began to build her own very elegant home. While this was happening, she was living in Pasadena. It was right around that time that she met Kay and they began writing together on a daily basis. As time proceeded, even though all of Cathy's money was wrapped up in the building of that house, she felt more and more strongly that Pasadena was where she belonged.

Unfortunately, she had invested all her money in that house, so when it was completed, she was compelled to leave Pasadena and move up to Santa Barbara. By that point in time, this was something she really didn't want to do. Her mother was delighted, though, in all sorts of ways. She loved Cathy and was very protective of her, and she really liked having the grandchildren right next door.

Cathy being in Santa Barbara didn't stop her from working with Kay. Every few days she would drive down to Pasadena and the two of them would continue to write. She did this for three years before it became too much and she decided to sell the Montecito house and move permanently to Pasadena, something her mother did NOT want her to do. This is when things got interesting. You would expect a beautiful, essentially new home in the

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[And one more non sequitur . . .]

When Kay died and I receded back into "normal" life, I continued to think toward the Brothers (as might be expected). But just recently, I've had some interesting personal experiences that have highlighted something I needed to noticed about that. When it comes to chelas, the Brothers don't want individuals who are turned inward toward them, they want individuals who turn outward toward humanity and the whole of life. When I was in the throws of having contact with them, my focus was on them. I can now see that isn't where they were hoping I would go.

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hills of Montecito to sell in a heartbeat. In fact, Cathy didn't receive a whisper of interest, not even a lowball offer, for an entire year (like, 52 weeks). This was very strange.

To make things even more exciting, on one of her trips down to Kay's toward the end of that year-long period, Cathy noticed a *for sale* sign in the front yard of a lovely, two-story home just a few houses down from Kay's. In a bit of a whirlwind process, she borrowed money from Zandra Ralphs (Zandra, if you remember from Volume 1, founded the Try Organization with the help of Kay, and was the heir to the Ralph's supermarket fortune), put a down payment on the house and ended up buying it. This was *not* something she told her mother (she later told her parents what she had done, but she couched in a white lie—she said she was *leasing* the house with the option to buy).

So why wasn't the Montecito house selling? To understand that, you need to know a little more about Cathy's mother. According to the Brothers, she (Cathy's mother) had in a previous life been a queen (in Spain, of all places) who had wielded a considerable amount of power. She was not, in other words, someone who had a history of accepting the world *no*. On top of that, she was a powerful psychic with a very strong will, an odd thing to point out but an important feature of the story. Because none of the *nobody's-interested-in-the-house* problem made sense to Cathy, she finally asked the Brothers about it. They told her that her mother, who as I said really didn't want Cathy to leave, had enveloped the house in a very strong, negative thoughtform that was acting to repel possible buyers. Cathy said she didn't know if her mother had done this on purpose—it could have just been her strong, strong desire for Cathy to stay—but that was what was messing up Cathy's prospects.

During her talk with the Brothers, Cathy asked if there was anything she could do about the situation. They said *yes*, she could put *salt* around the perimeter of the house. Cathy did this. *Within a week*, the house sold. Salt! It apparently does have the ability to absorb and eliminate powerfully negative thoughtforms.

And as a funny aside, when I asked Cathy if I could tell this story, she said she didn't think anyone would believe it thinking instead that the sale was just happenstance. I said there was so much unbelievable stuff already in the book that anyone who got this far probably wouldn't be phased. With that she laughed and said OK, so there you have it.

Chapter 51

Afterthoughts and Stuff That Didn't Really Fit In #1 --a Potpourri--

[There are a lot of the problems with writing an autobiography that doesn't have an endpoint, and all sorts of problems with tinkering with it over several years. After all, *life happens* while you're waiting to die. Some of the writing is done while topics are unfolding, giving them a diary-like feel. Other parts are written with the perk of hindsight. Then there's always the problem of one's memory going the way of all good things with that bright, new thought you just wrote into Chapter 27 being, unfortunately, the same one that took you by storm five-years earlier when you wrote it into Chapter 9. As to that last point, if you've noticed me repeating myself as you've danced through the book, my apologies . . . though now you know how my colleagues have felt for years (Jill, Patty, Robin, Richard, Jack?).

The "Musings" chapters in the middle of Volume 1 were devoted to topics that didn't fit into my story proper but that were, as far as I was concerned, important to know about if you wanted to understand from whence I was coming. These next several chapters are devoted to things I've either thought had comedic value or that embodied something I've felt strongly about but haven't found another place to put (or that just happened to pop up in later years and so here they've fallen).

Let's pray I won't be plagiarizing myself too boldly as we go. (Also, just so you know, some of this is about the Brothers, some not. We will get back to them in a dedicated way in the last several chapters.)

As before, I'll precede each section with a brief preamble. And if at some point in this chapter you get bored, feel free to move on to the next section.]

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[Cross specie friendship—written in February, 2012]

I just read a Time magazine article about animal friendship. Apparently, scientists have long believed that the only specie on the planet that has the brains and motivations to form long-term relationships that aren't driven solely by procreation are humans. There is now, again apparently, evidence that there are species other than humankind that make friends, and even situations where the friendships are cross-species.

The old-school attitude was that *all* animal cooperation and appearances of friendship, even those that are same-specie driven, are a *you scratch my back, I'll scratch yours* kind of thing. And that is still, according to the article, the way *most* cases are viewed. But cross-species friendships have been observed, and when they've happened it has been really funky.

The article talked about a hippo and tortoise that apparently became friends. They hung out together, becoming inseparable. They ate together. They took walks together. And why? Because, said the scientists, the hippo needed support, and when it couldn't get it from other hippos, it turned to whoever was willing to give it.[1] In other words, it really wasn't a friendship kind of thing after all but more like, you know . . . friendship?

Nature's duty is to reflect the state of humankind. If you are willing

[1] This is going to seem very off-the-wall, but this makes sense even in the human realm. I was listening to NPR as I was making my rounds grocery shopping today, and someone was making book suggestions for the summer. One of her suggestions was about two women in India who fall in love. This is obviously a *same*-species relationship, but the basis of it is very much like the hippo and tortoise (though I'd never refer to any woman as a hippo). How so? Imagine you are a woman and all the men you have ever come into contact with have been overbearing and/or completely self-absorbed and/or not at all caring and/or violent, and then you run into a woman who is the exact opposite of all that. Who *wouldn't* move into a relationship with that other woman if the possibility arose (this not being the only reason women move in that direction, but still . . .). That is not to say that women can't be every bit as cruel as men when it comes to love (I had a lesbian friend tell me such in no uncertain terms), it is just to say that when people are looking for a supportive, loving relationship, one of the individuals in the pair does not necessarily have to have a dick.

And as a funny aside to all of this, as I said, I would never refer to a woman as a hippo. I did, though, once refer to a freshman girl as a whale. It was completely innocent. I was one of the chaperones on a backpacking trip in one of the canyons near, as I remember, Escalante, Utah. I and one of the freshman girls had crossed a stream and become mired up to our knees in mud as we tried to exit the water. The two of us were swaying back and forth trying to pull our feet out of the morass, and I said, "We probably look like a couple of beached whales." I was told laughingly by one of the female chaperones later in the day that I should NEVER refer to a freshman girl as a beached whale. Innocent enough, but funny stuff nevertheless.

to accept that, the real question is, "Are there cross-species friendships that involve humans?" Can, for instance, people become friends with their cat or dog or horse?[2] If that is possible, you should find cross-species friendships between animals other than humans.

Unfortunately, that premise is not a part of scientific doctrine, so there you have scientists completely amazed when they find a hippo and tortoise hanging out together, even when the experience of friendship is roaring its presence all around them as well as right in front of them.

Sad, so sad (a lament that I wrote considerably before Trump stole the sentiment!)

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[A gang of animals . . .]

Speaking of cross-species friendships: I talked earlier about Amber, the woman who became a labor-and-delivery nurse from Loma Linda University. She told me a story recently that was kind of fun.

Nurses typically work twelve-hour shifts. After Loma Linda, she spent time working as a Traveling Nurse, a situation in which a short-staffed hospital hires an experienced nurse for sixteen weeks to help their rotation out. It paid a lot and was a great gig if you got into a good hospital, but she especially wanted to find full-time work in a hospital that dealt with high-risk deliveries AND had nurses who were nice (word has it that *labor and delivery nurses eat their young*). She found a hospital in Orange County, St. Joseph of Orange (a Providence hospital attached to Children's Hospital of Orange County, one of the preeminent labor-and-delivery hospitals in the state), that she fell in love with. Its only downside was that it was an hour away from her home in Highland. As she would normally get off work at 8 PM there, she wouldn't make it home until around 9 PM.

The street Amber's home is on is on a hill, and at the bottom of the hill it makes an L-turn to the left. Her house is right in the crux of the L. One night as she was getting home, she was driving down her street when

[2] Interestingly, I work on my computer at my dining room table. When I do, my forearms are lying on the table with my hands on the keyboard. My cat has gotten into the habit of jumping up onto the table, then lying down across my left forearm, completely immobilizing it. She then, often, just goes to sleep. This doesn't happen around feeding time, so it isn't as though she's trying to remind me to feed her. She just wants to be close to me, kind of like a friend (there's a photo of her doing this back in Chapter 35). This isn't as unusual as some think.

she was stopped by a gang of animals *crossing the road*. As she looked, she saw a raccoon and two skunks, and in the middle of the crowd she saw *her cat*. They crossed the street as a group, turn left, march up the sidewalk aways, then turn again to enter bushes in a neighbor's yard.

She was kind of amazed at all of this, but once here path was clear she parked her car in her driveway. She got out, and as she turned to go into the house she saw her cat coming down the sidewalk toward her. The cat had evidently realized she was home and it was time for dinner.

So in a nutshell, the cat was perfectly happy hanging out with Amber when she was home, but when she wasn't the cat hung out with a group of neighborhood animals including a raccoon and two skunks.

How's that for cross-species friendships?

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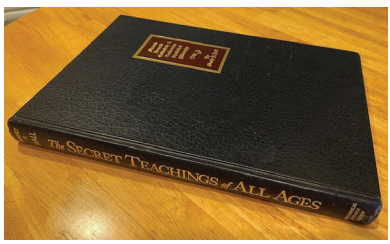
[Ever-burning lamps . . .]

I've just spent several pages relating hopefully fun stories about our younger brothers, and it struck me that I've said very little about *the elemental kingdom*. As I often do, I'll be approaching this in a roundabout way. Stay with me.

Manly Hall was born in 1901. A scholar, he devoted his life to researching "the inner mysteries of life" and what today would be called *the occult*. He was a 33° Mason, which is the second highest station one can achieve in that body, and he started the Philosophical Research Society in 1934.[3] He wrote over 150 books and essays and gave over 8000 lectures (including one at Carnegie Hall). One of the coolest, most exotic books I've ever run into that wasn't attached to the Brothers was written by him. It was called *The Secret Teachings of All Ages* (the book comes in two sizes, one the size of a large, coffee-table-style trav-



[3] PRS still exists in Hollywood, California (drive up Los Felix from the Golden State Freeway and you'll find it on the left at the top of the hill—there is an enormous, stone, Egyptian Scribe sitting at the edge of the property). As was the case when Hall was alive, the society is "dedicated to the study of religion, mythology and metaphysics." According to Wikipedia, it has a 50,000-book research library, and in 1995 sold to none other than the Getty Research Institute "one of the world's leading collections of alchemy, esoterica and hermetica." In short, the guy was kind of amazing, and so was PRS.

el book, and the other a ginormous one-and-a-half-foot wide, two-foot-tall beast).

And why am I talking about him here? In *The Secret Teachings of All Ages* (page LXI, which is page 61 for those of you who never learned your Roman Numerals), he talks about *ever-burning lamps*. These were lamps that were found in the ancient world over time, that had apparently been going for hundreds to thousands of years. Quoting what he says about them in Secret Teachings:

> "Ever-burning lamps have been discovered all over the world," including the Mediterranean, India, China, Tibet and South America. Examples include:
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> "Plutarch wrote of a lamp that burned over the door of a temple to Jupiter Ammon; the priests declared that it had remained alight for centuries without fuel.
>
> "St. Augustine described a perpetual lamp, guarded in a temple in Egypt sacred to Venus, which neither wind nor water could put out. He believed it to be the work of the Devil.
>
> "In AD, 1550 on the island of Nesis, in the Bay of Naples, a magnificent marble vault was opened in which was found a lamp still alight which had been placed there before the beginning of the Christian Era.
>
> "According to the *Fama Fraternitatis*, the crypt of Christian Rosenkreuz, when opened 120 years after his death, was found to be brilliantly illuminated by a perpetual lamp suspended from the ceiling." [4]

Hall identified several more historical references to these remarkable objects, but the last one I'll quote is the most important (you will see why shortly).

> "Numa Pompilius, King of Rome and magician of considerable power, caused a perpetual light to burn in the dome of a temple he created in honor of an elemental being." [5]

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[4] CR was the founder of the Rosicrucians, a mystical brotherhood devoted to esoteric knowledge and spirituality, though not surprising as esoteric lore goes, his existence as a person has its doubters. I think he was a member of the Brotherhood, though who knows.

[5] Numa Pompilius was born on April 21, 753 BC (the same day Rome was founded). He was the second king of Rome, and was known to live "a disciplined life, banishing luxury

It isn't surprising that historians, if they've been willing to accept the existence of these *ever-burning lamps* at all, have focused on what kind of fuel a lamp like that might use. It would have to be something that was able to regenerate itself, and it would have to be a fuel that didn't burn up the wick (that was another oddity—the wicks seemed intact for the entirety of their existence).

The Brothers were once asked about these lamps in one of the public meetings. What they said isn't a surprise if you know anything about eastern metaphysics, but it may be a surprise to you. A little more preamble is required.

At some point in this autobiography, I've talked at length about the Consciousnesses that animate human form (you and me), about the Consciousnesses that animate animal form, our younger brothers, and about the Consciousnesses that animate the plant world, the devic kingdom. What I haven't talked much about has been the Consciousnesses that animate what is called *the elemental kingdom*.

When I was young, I remember hearing (and thinking absurd) the idea that the world was made up of four elements, *earth, air, fire* and *water*. As usual, my ignorance was on full display. What I didn't realize, and what was really being pointed at in this listing, were the Consciousnesses that animate the physical forms that underlie the physical world. There is Consciousness at the heart of the atom. These are the *earth elementals*. There is Consciousness associated with wind. These are the *air elementals*. There is Consciousness associated with the only compound that can dissolve literally any physical substance with time, water, that makes up most of the body-weight of living creatures, and that covers the earth in flows that resemble arteries. These are the *water elementals*. And there is Consciousness associated with fire. These are the *fire elementals*.

Just as is the case with you and me, these Consciousnesses exist whether animating physical vehicles or not,[6] so it might be possible to trap a fire elemental, for instance, in a lamp, and the lamp would glow brightly for as long as the elemental was present. There would be no classic burning (though the lamp would glow as though there was burning), so no fuel would be required. And with no actual fire, the wick would last forever.

That, I believe (from what the Brothers said) is the heart of the *ever-burning lamps*. There were, in ancient times, magicians, real magi-

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from his home." This was not a milk-toast guy.

[6] Note that the quote about Pompilius says his temple was honoring "an elemental being."

cians in an esoteric sense (Pompilius, apparently, being one), who had the knowledge and power required to attach a fire elemental to an object (like a lamp). I'm not sure this was a terribly benevolent thing to do, as forcing nature into service like that may or may not be an unnatural infringement on those Consciousnesses (nature will turn itself inside-out for an enlightened Being, but there have been many over time who have had power and haven't been very thoughtful about how they've used it). But in any case, that is what the Brothers said the *ever-burning lamps* were about. Kind of cool, and notice how perspective can make something that doesn't seem reasonable at all into something that is very reasonable.

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[Finding your mate-for-life]

I'm fastly coming to the conclusion that the Asian/Indian approach of arranged marriages is not all that unreasonable. You really don't understand this until you have experienced "love," but falling in love with one individual and then staying happily married to that individual for the rest of your life is a rare happening. That is not to say that *wanting that* and *looking for it* is bad. It is just to say that if you are a normal human being, you shouldn't be surprised if karma moves you purposefully into a love experience, then moves you out of it.

After you've been through the ringer a few times with experiences like this, it is possible you may conclude that having a boyfriend or girlfriend isn't worth the heartache and isn't for you. And when that happens, I'll bet karma will put someone under your nose, you will forget all about your observations and conclusion, and you'll be off to the races once again, hoping mightily.[7]

There is nothing wrong with any of this. It is interesting, though, and it brings to mind something I read years ago. The thesis was that the

[7] As I pointed out in the E.Phil book (and just recently wrote about a few chapters ago), one of the more powerful tools in karma's bag of tricks is *forgetfulness*. Forgetfulness in humans allows karma to bring us into possibly painful experiences designed to awaken us, then allows us to forget the awfulness of the circumstance so that later in life it can use the very same experience to hopefully shake us awake even more (how many times have you fallen for the same kind of guy or girl, each time getting zinged because you were being attracted to qualities that were just, plain wrong—if forgetfulness hadn't been at work, you'd have never fallen that second time and karma would have had to come up with some other way to let you see that superficial beauty, for instance, isn't the key to happiness . . . assuming that was something your child-self had convinced itself of in the first place).

person who might be ideal for you when you are twenty-four may not be the person who is ideal for you when you are forty-five, or when you are seventy. I'm not against life-long marriages—my Aunt Clare and Uncle Sammy were a great example of people who really loved each other and reveled in the presence of one another for their entire adult lives—but I don't think life-long marriages are in the cards for most people. And assuming there aren't serious complications (children always mess up the equation), I additionally don't think that having multiple mates over a lifetime (each in their own time, not all at once) is as bad as it has been made out to be.[8]

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[My own "smack in the face."]

The train of thought that brought me to the ideas I'm about to write about presented itself by pretty much hitting me right in the face a few days ago. That train is not terribly important, but it will end with observations about Masters and chelas, so I think people might find it worthy of a few moments.

It was summer and I was riding my bike home from Poly. I came up to a stop sign, stopped, and for some reason started thinking about the odds I would ever have a girlfriend again (amazing, me thinking about *that*). I am old as the hills, at this point 65 years old (though that makes me just a few years shy of twice the age of my last girlfriend, AB, who was mid to late thirties when we lived together—also, this was written in 2013). So do I really want another girlfriend at this stage of my life?

What surprised me was that I couldn't see any reasonable woman in the age range I seemed attracted to wanting to get together with me (this *not* being half my age, but at least younger). There had been one very attractive young woman I'd met recently who seemed interested, but she had a very precocious, obstreperous daughter who was, what, four years old, and I suspect what the woman really needed was support and an ally to help with that constantly demanding child (though who knows what is really going on in the mind of another).

[8] I was not very introspective when I was a kid, but I distinctly remember periods of my early life running into female after female after female, each of which I found unique and attractive and fascinating, and thinking *so many women, so little time*. This longing and repetition of experience is, I suspect, part of why getting off *the wheel* is not easily done.

The question posed during that bike ride was, "Why *do* people get together?"

I know there are couples who just fall in love with one another naturally, almost spontaneously, most probably because they have been together several times earlier in previous lives. But usually, it is either the consequence of a karmic knot that needs to be dealt with or a perceived necessity within the individual that the individual is striving to fulfill (child-selves do have their perceived needs).

So might I find myself with another girlfriend in the future? As curmudgeonly as this is going to make me sound, I hope not.

The topic does bring to mind something about the Brothers, though. I don't remember where I read it (or where I heard it), but somewhere along the line I remember coming into contact with the idea that when the Brothers are out and about in the world (this doesn't happen often due to the considerable psychic buffeting one takes as one swims through the densely layered thought-energies of the *child-selves* that pervades this place . . . which is to say, the psyches of *you and me*), they are very careful to shield their aura against the possibility that someone might sense what they are.

Given child-selves' somewhat utilitarian tendency to latch onto whoever and whatever gives them succor (ah, the poetry), imagine what a child-self might do if it came across a completely enlightened soul, someone who was infinitely understanding, loving and compassionate, not to mention immensely powerful.

Still, for all the reasons the Brothers could have for keeping themselves hidden, I think the *main* reason is that it wouldn't be fair to the spiritual evolution of the individuals they might touch. As we so rarely if ever have outward contact with a Being who is enlightened (or even *close to enlightened*), there really is no way to talk meaningfully about how our own small self would react to such a meeting.

Which brings me to the point of this section.

I remember the Brothers saying that if any one of us (in the group) were to take the nearly impossible step from being "normal" to being "fully enlightened" in one great leap, we would find that everything and everyone around us would change.

When they talked about this, I just assumed they were referring to the bliss of enlightenment. What has since dawned on me slowly was that that wasn't it.

As I've said (probably a dozen times by now), part of nature's task, and one of the unconscious tasks humankind owes to its own, is to reflect

the state of each human being's self *back at that self*. Though our child-self often actively obfuscates the effort, experience is really designed to nudge us toward more clearly seeing ourselves and, hopefully, helping us to build into ourselves qualities that are good and lasting. In doing so, the Whole grows and becomes greater.

When an individual becomes enlightened, there is no longer the necessity for life and karma and the humans around that individual to reflect back at the individual the dissonances within the self, because those dissonances would no longer be there. That is, the need to bring attention to *where the individual has gone off the rails* would no longer exists. That is what the Brothers were talking about. Relationships would change. Petty angers and jealousies that might normally be directed at the individual would vanish because the individual would no longer holds petty angers and jealousies within themselves. Edges would smooth out. EVERYTHING WOULD BE DIFFERENT.

I can see all of that now, not because I have come into enlightenment but because I haven't.

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[The Brothers talking about possibilities and probabilities.]

One of the last of the very few disagreements I had with AB back when we were together had to do with the prospect of my buying a 32-foot extension ladder. My backyard used to have an asphalt badminton court in it. I have since torn most of it out (that was a task) but I left the twenty-foot-high poles on both sides of the court that provide floodlight coverage. The bulbs in the fixtures had long since broken, so I needed to find a way to get to the receptacles, pliers out the broken bulbs (after turning off the electricity, clearly), and putting new bulbs into the units.

Getting to the fixtures, that was the trick. I thought about shimmying up the poles, but they were only about two inches wide and I knew that as I got higher and higher, they'd begin to sway back and forth, and that didn't seem like a good idea. Conclusion: I couldn't do the job without a long ladder. (I also thought an extra-long ladder would aid me in putting lights up in my Chinese elm tree, a touch I thought would be nice.)

AB was looking at the situation more from a Darwin Awards perspective[9] believing that if I did this thing I would inevitably fall at some point

[9] For those of you who don't know, the Darwin Awards are given every year to people who have died doing things that are so moronic, their death is viewed as a blessing as it

and break my neck. Consequently, I was forbidden to buy the ladder.

This animated one of the ways in which AB and I differed. In her mindset, there was always the expectation that things would go wrong. It wasn't her fault. The poor thing had had a series of medical disasters that made her somewhat paranoid about germs (she even got a *c-diff* infection that could have killed her if an observant doctor hadn't, on a hunch, caught it before she'd exited an emergency room visit a few years before I met her). I, on the other hand, had always assumed that life would flow as it should and things would work out.

For instance, I have a flat roof. A flat roof is the worst for all sorts of reasons, but if your house is bordered by deciduous trees, it is especially bad. Why? Because before the rains come, *if* they come (California is experiencing a serious drought right now), I always have to go onto the roof and sweep it clean. If I don't, leaves from the trees will clog up the gutters and water exits, water will pool on the roof and, sooner or later, the roof could fail with a ton of water cascading down into my bedroom (this actually happened with the flat roof over the back bungalow one year—it happened just as I opened the sliding door into the area—the ceiling just sort of hinged downward and five-hundred gallons of water dumped into the room in about a second—it was one of the coolest things I'd ever seen).

I used to just dump the leaves over the edge when I'd do this sweeping, but last summer I did cleanup work around the house and didn't want to mess things up. Unfortunately, just before the first storm of the season, as I was preparing to go onto the roof, I threw my back out.

Sporting a weight belt, I positioned my extension ladder and climbed. The problem was that I needed some way to get rid of the leaves, so as I climbed, I dragged a two-hundred gallon industrial garbage can (the one the city gives residents to put leaves, etc., into for pickup) up the ladder with me.

Getting the container up the ladder was a hassle (I even had my neighbor take a picture of me making the ascent as it

removes them from the gene pool (hence the reference to Darwin and natural selection). My favorite is the guy who was fishing with dynamite and had his retriever jump out of the boat, fetch the stick and bring it back to him. I've done a few things in my life that might have qualified for the award, should I have died from the experience. It is not generally something for which one strives.

seemed like such a crazy thing to do). Getting it down, full of leaves, was even more exciting. I did it though . . . except AB would have had a fit if she'd been around. "How stupid can you be?" she'd have said. "You could have killed yourself . . . and with a thrown-out back!"

All of which would have been true . . . except I didn't kill myself . . . which brings me to my point. It didn't happen often, but every once in a while, Kay and the Brothers would reply to a question about why something had or hadn't happened with the phrase *possibilities and probabilities*. They would usually continue on from there, but I now know more about what that phrase means.

Possibilities arise naturally as a consequence of being in a body. The PROBABILITY that those possibilities will actualize is determined by *the actions and choices you have taken and made in the past*.

This is the mathematics upon which karma is based. Why did that car just miss running me over? The possibility was there, but the probability of getting hit at just that point in my life was low, so it didn't happen.[10]

I am not fatalistic by nature, and *possibilities and probabilities* is not a creed that I've consciously lived my life by, but I can remember situations that could have been catastrophic but weren't, missing by a hair, and my reaction has never been to focus on the near tragedy. Instead, I've accepted the situation as it was—a miss—and moved on (though that is not to say I haven't looked later to see if the situation might not have been caused by my doing something stupid, and I have always been grateful that karma didn't direct me into that bad circumstance). My inclination, in other words, has been to not ghoul over my near misses. I seem to simply (in the words of Dillon) *keep on keeping on* . . .

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[Having absolutely no redeeming value #1: the Anoakia School caper.]

Sometime around my sophomore or junior year, Ben Crew showed

[10] Current research suggests that a fair amount of cancer occurrence in humans *is random*. This doesn't surprise me at all. If there is a high probability that an individual needs an experience that cancer can bring, whether it be nudging the individual into thinking more about *who they are* and *where they are* and *how they are dealing with life* or whatever, having nature build into the cancer mechanism seeming "randomness" is an ideal way to allow karma to bring that possibility to fruition. Nothing is truly preordained, but underneath the surface, nothing is ever truly random. There is always a method to the madness.

up to San Marino High School. He was a big, nice-looking fellow, and he played wingback on the football team, as did I. We got to be pretty good friends.

I am not sure where Ben went to school before hitting SMHS, but he knew (and had a crush on) a La Canada girl whose family owned Anoakia School in Arcadia (the school had a very nice, walled, overgrown campus just west of Rosemead Blvd and north Foothill Blvd).[11] I didn't know much about the school, but according to Ben it was girls-only and had females living on campus.

One night, Ben and I were hanging out, basically up to no-good, when he suggests we raid Anoakia. I'm up for anything, so we drive to the residential street that is adjacent to Anoakia's very high, northern wall, and park. We get out and climb the wall gaining access to the grounds.

Not knowing if they had dogs or security, we stealthily crept through the garden area to the main house. Upon approaching, we notice a semi-open window on the first floor through which we can see four girls. They are in bras and panties, so they aren't exactly indecent—nothing more than one would see at the beach—but the situation was still dicey (if we'd been caught, we'd probably have been charged as peeping toms).

We crept to about ten feet from the window. At that point, we not only had a nice view of the room, we could additionally hear the conversation that was going on in the adjacent bathroom. The conversation went something like this:

One girl says, "I wonder if birds screw?"

The other says, "I don't know, but if they don't, I'd sure hate to be a bird."

It was the typical kind of bullshit/bravado anyone with half a brain would expect of girls who thought themselves alone, but Ben and I didn't have half a brain. Hearing this, we decided they might just appreciate some male company. So Ben sneaks up closer to the window and issues a sound. "Pssst."

The girls hear it, stop everything and look toward the window.

Ben goes "psst" again, and one of the girls lets out a scream that would have awakened the dead. Ben and I take off running. I go in one direction, he in another. Separated, I hear bushes rustling, then he burst through running me over like a freight train. I picked myself up and make it to the wall. It was covered with ivy, so I had an awful time getting over, but once free we got to the car and sped off.

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[11] I don't remember the girl's name, so I'll just call her Heidi. Also, I ran into to her about twenty years after high school graduation. She had a kid who was attending Poly.

As we are leaving, though, it dawns on me that the girl only screamed ONCE, so maybe they'd have let us in if we'd just stuck around. I suggested this. Ben veto's going back, and that was that . . . almost.

As we are heading back to Ben's house, he says, "Let's go visit Heidi up in La Canada and tell her about our adventure." I said "sure" (of course), and off we went. When we arrived, I could see why Ben had the crush. I could also see why he really didn't like her boyfriend. This was a very fine young lady. Anyway, that was what became known as *the Anoakia caper*.

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[Having absolutely no redeeming value #2: a gas station story.]

It is funny how memory works. I've pretty much written all I thought was important about my life (though I'm sure I've left out happenings and people that deserve more from me—I do apologize if you fall into that category), so I'm now in the *have I forgotten anything* mode. In that vein, there was that gas station incident.

I have already talked about how much fun I had, riding my bike through the then wide-open spaces of then hilly Covina, California, when I was a third grader. And I said I did NOT find *wide-open spaces* in San Marino when my mom, stepdad and I move there. But when we did get there, it didn't stop me from riding my bike all over town.

So I'm in the fifth grade, and it's a hot summer day, and a friend and I are riding our bikes along Colorado Blvd near San Gabriel Blvd in Pasadena. We've been in the sun for hours and I'm getting thirsty. I suggest we find a water fountain.

We come upon a very old, 1920-style gas station (one pump and that's it) on the north side of the street, and as we are entering its tiny footprint I rather arrogantly and cockily and wise-assishly say to my friend, "It's a gas station, but what a dump. We'll be lucky if it even *has* a water fountain . . . "

My friend chuckles, then notes that we are in luck. There *is* a water fountain next to the door into the little office. We get off our bikes to have a drink. He goes first, has a nice, long, refreshing pull, then steps away for me to have a drink. I push the button to make the water spout, which it does, but as I bend over to take my drink the spout dies down to nothing. I straighten up. I push my finger back down on the button, and once again the water spouts. I bend over and the spout dies. I straighten up and the

fountain comes back to life. I bend over and it dies.

I look at my friend and say something to the effect of, "What the hell," and inside the tiny little office we hear muffled but slowly escalating laughter. And with that, up from behind the cabinets that lined the inner office wall next to the door pops the head of an old man who is now nearly apoplectic.

It would seem that the man was the owner of "the dump." He had been sitting on the office floor stocking the cabinet when he heard us approach, and he heard me make my snotty, condescending remark. As the on/off valve for the faucet was under the counter, he ducked down, peeking out all the while, and every time I would bend over to take a drink, he would turn the water off.

It was a very funny joke (one that he explained after popping his head up from behind the counter). And because it was a simpler time, I didn't feel embarrassed or irritated or anything like that. Instead, I realized *I'd been had* in good fun. Consequence: I apologized for being such an ass and, with my friend, laughed right along with the man.

I may not always remember where I put my glasses (said the old, doddering codger), but I seem to remember amusing events even when they happened sixty years ago.[12]

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[No redeeming value #3: it's a car . . .]

The only *mean* thing my dad ever did to me (which wasn't really mean, but still . . .) happened when I turned 16. It was wrapped around a relatively new fangled electronic device called a transistor.

When I was quite young, radios were monstrous things that sat on a

[12] One more tidbit: When I was living down in lower San Marino (I was probably in the fourth grade at the time), there was a little open market in San Gabriel that used to send out a weekly flier announcing what they had for sale that week. I remember mom and Stu (my stepdad) chuckling over one such flier. It seems the ad was supposed to say, "Chicken Parts, 2 lbs. for $1 (or some such price)," but somehow the typeset had gotten it wrong and the flier read, "Chicken Farts, 2 lbs. for a $1." Later in the week, I found them laughing to themselves again. This time, Stu had gone for lunch at The Seafood Tavern, a restaurant that was then on the corner of Rosemead and Colorado Blvd, and when he'd opened their menu he found an insert touting the *Special of the Day*, "Whiff of Chicken." Apparently, the restaurant got the same flier as my parents, and they decided to riff on it. For us in those very simple times, this was very funny stuff.

tabletop and had to be plugged into the wall for power. There was no way you could walk around outdoors with your music. It wasn't until the transistor came into existence that portability became a thing.

The theory is interesting. By infusing impurities into a host material (an insulator—this is called *doping*), you can make the host act like a conductor. Called a semiconductor, there are two kinds. One produces electron conduction, the other hole conduction (where the holes act like positive charges). When combined, you get a diode. Put two diodes back-to-back and you get a transistor. Under the right conditions and with the right circuitry, transistors can act like amplifiers.

This was and is the basis of the transistor radio, a radio that extracts radio waves out of thin air, then amplifies the signal so as to drive a small speaker. All you need to power the device is a battery. This is a very clever piece of work.

So it was my sixteenth birthday, and above all else, I wanted a car. I was at my dad's out in Covina. I had opened what I thought was my last birthday presents only to have dad give me one last gift, a small box. I opened it to find *a car key*. He got me a car!!! I took the key, ran out the front door, down the walkway and around the corner to the front of the garage. And what do I find sitting in the middle of the driveway? A tiny, tiny, tiny car (like 4 inches by 9 inches). It was the only mean thing my dad ever did to me, except it was actually a very nice gift. It was a transistor radio. I will never know why a manufacturer thought making a transistor radio look like a toy car was a good idea, but that's what someone did and dad bought me one. After getting over the disappointment of not receiving a car I could actually drive, I realized this had been a pretty funny joke.

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[Kitchen lore . . .]

Both of the stories I am about to recount have to do with rather spectacular things I've done in the kitchen in the last year. The first has to do with a pizza.

I occasionally take one of Trader Joe's frozen, three-cheese pizzas, add gobs of additional mushrooms and black olives, bake it in the oven and then eat the pizza with relish (no, not with chopped pickle, with gusto). One night, I took one of these pizzas out of the freezer and found that frost had formed luxuriously underneath the packaging. It didn't bother me—I knew the frost would melt in the oven—so I removed it from the

said packaging, prepared it with mushrooms and olives as usual, preheated the oven, then placed the naked pizza directly onto the middle oven-rack. I went back twenty minutes later and found something surprising.

Because the pizza had been completely frosted over, and because it was rock solid just after I took it out of the freezer, I hadn't noticed that I was putting the mushrooms and olives on the *wrong side* of the pizza. So when I placed the assembly on the oven rack with the mushrooms and olives facing upward, I was inadvertently placing the cheese-infused top surface *face down*. And when I went to remove it, the cheese had melted onto and into the oven and I had a serious mess on my hands . . . and something to laugh about, because who does stuff like that. (Apparently, me!).

I did one other thing that was not nearly as funny as the pizza goof, but moderately amusing, nevertheless. I have a small iron pan I use for all sorts of things, but one night I decided to go wild and try to make a real, live omelet in it. So the plate would be warm, I put it upside down on the oven top (I have a gas oven, so the top is always a little bit warm). I chopped up mushrooms and olives, went to the market to get spinach, which I cooked and chopped, and then did all the fussing that is required to get the egg ready. I put the egg in the hot pan, and when ready I flipped it (I actually threw it upward with a twist to get it to flip over mid-air, then caught it in the pan as it came down). Once flipped, I put all the goodies onto one half, then folded over the other half making the pocket that is characteristic of omelets. I slid the assembled masterpiece out of the pan and onto the plate only to realize too late that I hadn't turned the plate back over, and now the omelet was on the plate's uneven underside. Once again, brilliant.

The bottom line is that if you cook with me, you better have a sense of humor, because sooner or later I am going to do something monumentally stupid, and it's going to be hilarious.

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[UFOs?]

I'm writing about UFOs because I just saw something about them on the news, and because the Brothers actually addressed the phenomena in a public meeting back in the 1970s. What you are about to read is very off-the-wall and needs preamble.

Sometime in the 1980s, the physicists who were playing around with the ideas associated with String Theory came to an unexpected conclusion.

If you don't know, String Theory in its original form postulated that everything that exists, from the fundamental building blocks of the atom to the forces that affect matter, are the consequence of tiny, tiny, tiny vibrating strings of energy (I talked about this some in Volume 1). The theory was and is titillating because it gives physicists a way to link Einstein's General Theory of Relativity, which is a deterministic, macrocosm theory of the universe, with Quantum Mechanics, which is a probabilistic, microcosm theory of the subatomic world. Because forces at the Quantum Mechanics level (like, inside the atom) are billions and billions and billions and billions of times stronger than the gravitational forces that act on large-scale objects, like galaxies, the two theories don't knit together compatibly. String Theory suggested a way forward for unification, which is very appealing (though the downside of the theory is that strings are assumed to be so small, they will never be observed . . . which means nobody will ever be able to experiment with them . . . which means that as elegant as the theory is, we aren't talking science, we are talking philosophy).

Ignoring that last problem, one of the early difficulties was that the theory had five competing versions, all seemingly complete but all different. Nobody knew which reflected the reality of this place. What's more, if there could be five, then maybe there were really, say, nine and we just hadn't been clever enough to identify the other four.

This problem was solved by a man named Ed Witten. To understand how, though, you need to understand a little something about Einstein's Theory of Relativity.

In Relativity, space is not a three-dimensional, homogeneous void. It is, instead, a four-dimensional entity with *time* being the fourth dimension. Additionally, Newton's assumption of gravitational forces was jettisoned in Relativity, but what I would call gravitational *effects* still had to be accounted for (balls still drop to the ground when released, and the moon still orbits the earth). How this was accomplished is fun.

The idea was/is that the presence of matter (like the earth) warps the geometry of space/time, and matter (the moon) interacting with that curved geometry creating the aforementioned gravitational effects. In other words, the moon moves force-free in its orbit, but because it is moving in a curved geometry generated by the presence of the earth, its path is elliptical around the earth. As for the falling ball problem, it moves from less warped space to more warped space in much the same way that water runs downhill. The point is, in Relativity, space is four-dimensional and what looks like the effects of a gravitational force are really produced by the interaction of matter and warped space-time geometry.

For the original version of String Theory to account for all the particles and forces in nature, the theory required not four-dimension but, rather, a whopping ten-dimensions.[13] That was the assumption being made in all those disparate versions. What Witten did was postulate the presence of an eleventh dimension. When he did, he was able to show that all of the competing versions were just different views of the same overarching theory.[14]

With that background, we are ready to talk about that unexpected conclusion I started this section with, the one that happened in the mid 1980's. With eleven-dimensions, the math predicted that strings could spatially extend to create what are called branes, and that branes could be immense to the point of holding whole universes. What's more, there is no reason you couldn't have two branes, each with its own universe, whose "vibratory rate" is different so that being mere centimeters apart wouldn't motivate contact.

In other words, this extended version of String Theory, which is now called M Theory, predicts that our universe is not alone, but that we will never have contact with the other universes on the other branes.

Enter UFO's. I have absolutely no interest in UFO's, but sometimes during one of the public meetings in the 1970's, someone asked one of the Brothers about them. I don't remember who the Master was, but whoever it was said something kind of exotic for the times. He essentially said that there are evolutions happening on "different levels" than ours, and that these evolutions more or less interpenetrate our worlds but are not evident because they exist at a different vibratory rate (this was, I'm sure, a situation in which words couldn't really express what was going on, but hopefully you get the idea). What the Master additionally said was that there are Consciousnesses experiencing in these different, parallel worlds, and that some of them are so highly technologically advanced that they could

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13 We don't see the additional dimensions because they curl back on themselves.

14 Funny story about Ed Witten. Witten is generally acknowledged as *the smartest guy in the room* when it comes to String Theory, so having him as a professor at your university would be a big deal. Caltech offered him a position, which he considered, but as a part of the deal he demanded a position for his wife (which was apparently secured at USC) and positions for his three children at the best private school in the area, which was Poly. Poly is limited by the City of Pasadena to the number of students it can have in a given year, and at the time it had only two openings. As Poly wasn't able to take all three of the kids, Witten turned Caltech down and instead went to The Institute of Advanced Studies in Princeton, New Jersey. Word has it that Caltech was so upset by Poly's inability to swing the deal that they wouldn't rent any of their athletic fields to Poly for several years (though that could just be rumor).

punch through to our level on occasion to see what we were up to. That is what a UFO is, according to the Brothers.

This conversation happened years before String Theorists came up with the idea of branes. Putting two and two together, though, suggests that what the Brothers were talking about, essentially, were evolutions on branes other than our own, and UFO's were the consequence of Beings on one of the branes being curious about us.

_____x_____

[Something forgotten from Volume 1 that's a little less exotic . . .]

Working at Poly gives teachers the opportunity to chaperone all sorts of student-related trips. There have been outdoor ed trips, the yearly physics-research trip to Six Flags Magic Mountain, and more recently the GIP trips (I'm writing this in 2025; the GIP trips for this year are to Italy, Kazakhstan, Japan, Argentina and South Africa). As the school encourages outside experiences for its students, I've had the chance to generate other, more unusual trips. Two examples come to mind.

When I first began at Poly, one of the all-time coolest places on the planet for science museums was San Francisco. I say this because it was the home of *The Exploratorium*. *The Exploratorium* was a veritable wonderland of science, housing over 600 mind-bending demonstrations (each with an explanation provided). On top of that, it was housed in *The Palace of Fine Arts* in the Marina District (you could literally walk across the street and find yourself in the yacht harbor, complete with several hundred moored boats). *The Palace of Fine Arts* was built to be the venue for the 1898 World Fair, complete with its own lake (see photo). In 1969, Frank Oppenheimer, the director of the Manhattan Project that produced the atomic bomb during WW II, talked the city into giving him a 100-year lease for the place for $1 a year.

I'm talking about this because sometime in the 1980's, Southwest Airlines had a $49 round trip fare from Burbank Airport to Oakland International Airport. I suggested to my classes that, because the fare was so low, we ought to go see the Exploratorium some Saturday. Forty-eight students said *yes*. Unfortunately, they couldn't all go on the same Satur-

day, so on two consecutive Saturdays, I and 24 students took the trip. We left Burbank at 7:30 AM, took the Bart to San Francisco upon arriving in Oakland, spent half the day at the Exploratorium, took a city bus to Fisherman's Wharf for dinner, then made it back to Oakland for the return flight whereupon we got home around 7 pm (on the second trip, we even got home early enough to go see a girls' CIF volleyball game that was happening that night at Poly). It was a very fun experience.

The second unusual experience had to do with a few of my early E.Phil groups. I had an unusually large crowd one year, and they so enjoyed "the course" that they asked if we could do stuff during the summer after they graduated. I only did it for a couple of years, but it was exotic and fun and I think the kids who were involved really appreciated the time.

That first year, maybe two weeks into the summer, we had our first outing. We went to dinner at an Indian restaurant called Paru's in West Hollywood, then traipsed out to visit the Bodhi Tree Book Store (it closed in 2011). A week later, we went to "sit" at the Mt. Baldy Zen Center (*sitting* is the word used to denote meditating for twenty-minute periods in the monastery's zendo—the first photo is of monks doing just that). A week later, we went to Santa Barbara to listen to a Vespers service at the Vedanta Temple located up in the hills there (the second photo is of the temple). A week later, we went to a Thai Buddhist Center down in Monrovia, California. A week later we went to main campus for SRF (*Self-Realization Fellowship*) at Mt. Washington in Los Angeles, then a week later to the SRF campus called the *Lake Shrine* in Pacific Palisades (the last photo). (These last two were a particularly interesting places started by a very fine Hindu "monk, yogi and guru" named Paramahansa Yogananda. I mention this because I've always loved that name—*paramahansa* is a honorary title in Sanskrit that translates as *supreme swan*, that being someone who has attained enlightenment. I don't know if that is an accurate representation of the man, but I

think he was at the least a very fine individual. He wrote *Autobiography of a Yogi* in 1947, which sold over four-million copies.)

The point is, I had the pleasure of going with large numbers of students to do all sorts of things that probably wouldn't have been possible in a "normal" school. For Poly, though, it was doable.

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[A point about karma that should have gone into Volume 1 . . .]

Until now, almost everything I've said about karma has been in service of trying to understand the root cause of things that are happening "now." Why am I in the situation I'm in? Why has karma drawn me to this experience?

The flip side of this, and something I've said almost nothing about (to my horror), is that the actions you take now will create and inform both the thought-world and the physical-world you find yourself in *in the future*. When you are confronted by that not-so-pleasant individual at the market, it could be life giving you the opportunity to act benevolently in the face of random dissonance, or maybe this is someone you have a karmic knot with, or it could be life reflecting back at you an aspect of yourself that isn't so great. There are dozens of possibilities, but what is assured is that whatever thoughtforms you animate and reinforce in that interaction, they will be yours. You will be responsible for them, and their existence will help make up the future you find yourself in down the line. As the Brothers used to say (paraphrasing), *it isn't the big things that matter (in reality), it's the little moment to moment interactions that lay the groundwork for those big things—that's what matters*. You really are your own parent.

This is part of the reason chelas are so rare. If a chela were to act *in the now* in a way that was inappropriate in a spiritual sense, karmic repercussions would come in the future that would be way beyond the norm. That is the consequence of the promise chelas make to life. They are essentially saying, *I want to move more quickly on behalf of the Whole, and if I screw up, I want to know about it writ large.* Who amongst us is dedicated enough to risk that? At this point, I suspect very few . . .

_____x_____

[I think I'm being nudged . . .]

This is going to meander some, but it's all going toward a common end.

It's 2023, and during Winter Break, two of last year's *solar car* participants (Aria and Julian) came visiting during the vacation, just to catch up and say *hi*. When they arrived, Aria had flowers for me. I said *thank you*, put them in a vase (the flowers, not Julian and Aria) and put the arrangement on the dining room table.

Maybe three or four days later, I was sitting at the dining room table working on this very autobiography, and Isabella, my cat, jumped up onto the table. Being a cat, she was rather demanding of my attention, sitting right in front of the computer, meowing at me to pet her (all the usual cat moves). I did pet her, but when I stopped and went back to work, she decided to do something mildly outrageous (at least, I think, in her mind) to get my attention again. She walked down to the other end of the table where the flowers were, looked at me, looked at them, then kind-of worried them (she acted like she was going to eat one of the leaves). My first thought was to tell her *no*, but I know that animals will eat grass if their stomach is upset and thinking that maybe she was in a similar state, I said nothing. Fortunately, she didn't touch any part of the arrangement.

I say *fortunately* because a few days later, it dawned on me that the flowers were lilies, and way back in the farthest recesses of my small brain I remembered that lilies weren't good for cat. In going to the almighty Google, I found that they are actually *deadly* to cats. If a cat gets just *three grains of pollen* from a lily on its fur, and if it licks it off, the cat will suffer kidney failure within three days *and die*. Lilies are that toxic to cats. And it isn't just the pollen. Any part of the lily—the stem, the leaves, the flowers, even the water they sit in—coming into contact with anything associated with the plant will kill a cat in short order.

I didn't *think* she had messed with the plant. Then again, I had no idea whether she had gone back when I wasn't around and made contact. I waited on pins-and-needles for three days to see if she would be OK. I'm grateful to say she was. I (and she) had surely dodged a bullet.

In the aftermath of this, I remember thinking what an odd series of events the episode had been. A former student very kindly brings me flowers, but the flowers have the potential of killing my cat. I *know* lilies are bad for cats, but that information seems to be buried out of sight in my thinking. How dark. And as bizarre as this is going to seem, it passed through my mind that just maybe her choice of flowers and my lapse in recognizing the threat had both been influenced by an impetus from one of the Dark Ones.

Ridiculous, I concluded. Why would the Dark Brothers want to hurt me? No reason I could think of . . .

Gear switch: Maybe two weeks later, as I was continuing to work on Volume 1 of the book, another thought passed through my mind. If this book has any impact on the thinking of the few who might read it, you'd think the kinds of things I was talking about concerning the Brothers might be things the Dark Side would prefer not be out there. And at the end of this puzzling, I wondered whether there might be an effort to thwart me in publishing the book.

Gear switch: A week later, I was making dinner. During the effort, I managed to briefly touch a very hot pan and burn myself. Maybe two minutes later, I did it again—two burns in one night (not exactly a record, but surely noteworthy). I put the burns under cold water to get them to calm down and didn't think much more about it.

Gear switch: A few days ago while in class, I'm trying to get across to my students that they will be having enormous amounts of freedom when they get to college next year (as I tell them, "You will be the one who decides when you will wash your clothes, *if* you wash your clothes; you will be the one who decides when you study, *if* you study; you will be the one who decides when you go to class, *if* you go to class.[15] There may not be a person within a thousand miles who gives a flying damn whether you live or die (outside of, maybe, your roommate)—you will be completely on your own . . . AND IT WILL BE WONDERFUL . . . college has the potential of be the most fun-time you will ever experience in your life."

Poly is a college-preparatory school, but we never give students training in how to deal with the kind of freedom they will be experiencing in college. I wanted that training for my students. They needed, in my opinion, to be given so much freedom that they could run amuck if that was their inclination. As I put it, "I'm happy to give you as much rope as you might need to hang yourself, metaphorically speaking."

Although the phrase "give you enough rope to hang yourself" was in common usage when I was a kid, and although most of the students laughed at the imagery, I realized later that the optics of the statement was

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[15] I usually insert here the fact that for the first month I was at ASU, I never went to my 7:40 AM class, choosing instead to sleep in. There was nobody around to blow me out of bed as there would have been if I was still living at home, so I took the freedom and kind of went to hell-in-a-handbag with it. I also tell them that the only reason I finally started going to my early-morning classes was because one morning I had to go over to campus at the crack of dawn, and I noticed that there were *girls* there, walking around, talking to people, having fun. Only then did I realize that I was sleeping half my college experience away.

not good. What's more, I had failed to include the words *metaphorically speaking* at the end, which was also not good.

That night, I kind of obsessed over how bad this could be. I have often said things in an attempt to be funny or to drive home a point that could easily be termed controversial. I usually do it for effect, but anyone hearing whatever I've said outside the context of the discussion could easily be dismayed. All I needed was for one kid to go home and tell bits and pieces of the story (likely the most inflammatory parts) to their understandably horrified parents, and I'd be in deep Bandini with the school.

As I usually do when stuff like this happens and I begin to worry about repercussions, I reminded myself that karma will take me where I needed to be, and if getting into trouble over something I've said in class is needed in a karmic sense, it will happen and will be my due.

Oddly, in this case, that acceptance didn't seem to help in the way it had in the past. There was (apparently) something else going on (as I've said before, I've learned from long experience that if the discomfort I am feeling about a situation won't go away, it means there is more for me to learn from the experience).

Switching gears for the last time: That night I was cooking and managed to lightly touch a red-hot pan, burning myself again. And when it happened this time, the thought that came screaming at me was, "You are not being thoughtful and careful. You need to protect yourself better."

That was the key to the whole series of events. I am writing a book that talks about things the Dark Side really doesn't want *out there* (at least with respect to those few who might read it), so it just makes sense that they may do things to either discredit me or at the very least distract me from that task. Killing my cat would have done that (remember, I knew lilies were dangerous, but it wasn't, mysteriously, uppermost on my mind). Getting me into trouble at school would to some degree have done that, too (I know better than to allude to suicide, but it was as though that understanding was blocked from my conscious thinking).

The Brothers told us we would be protected. I don't know if that was meant for the time we were in direct contact with them or throughout life, but in any case, I think the events I've outlined above were little karmic nudges to make me more cognizant that I *need* to be more mindful and thoughtful and caring, and being all of those things were becoming more and more important.

In short, I need to be more actively protective of myself.

x

[More about being protective . . .]

Being protective is fine and swell, but there is always karma to be considered, so when things happened that edge toward disaster, you never really know if it's you being stupid, or if it's an old karmic knot working itself out, or if the Dark Side is messing with you. I had the latter two situations happens after I wrote the last section (it's 2025), and both saw me being confronted by HR at Poly as a consequence. I might add, I had no intention originally of recounting the second story. I'm doing it because there was a profound happening at the end of the action that I really do need to say something about.

The first scenario was a *stupid me* move (the Dark Side messing?). We used to have a non-academic, seminar-like activity for second-semester seniors called *Human Sexuality and Relationships*. It was not uncommon for these HS&R meetings to happen in the early evening. Additionally, there was a time early on when girls in the class would attempt to scandalize anyone in earshot by saying, "I'm going to be having sex tonight." The obvious joke was that they weren't really saying anything provocative or naughty if you knew the key, which was that they were just truncating the name of the class.

Anyway, I was in a meeting of senior advisors recently, and the woman who now runs the class was saying that the name had been changed to something-or-other. Thinking I might add a little levity to the proceedings, I said, "You realize that in changing the name, you are depriving our students of one of their great joys, being able to say, 'I'm going to be having sex tonight.'"

I expected the woman to go along with the joke and reply with something like, "Oh, yeah, like our kids are so abused" (or some such), but she didn't. Instead, she took the comment as an afront and somehow managed to conclude that I was talking to female students about their sex life (huh?). Anyway, she complained about me to either Jose (the Upper School head) or HR (I'm not sure which, though it was HR that talked to me about it). I was able to explain myself, but there I was, trying to be funny but inadvertently putting myself into possible jeopardy. Again, I have to be more thoughtful and protective of myself.

The second incident was over a more protracted period of time and, I think, had a more karmic tilt to it. It had to do with a very unfortunate circumstance I got myself into with a young teacher in our department.

In a nutshell, at the end of last school year, this young lady lamented during a department meeting that she had absolutely nothing to do over the summer and was looking forward to a very boring vacation. I had planned to spend part of my summer doing some building projects at home. This was someone who was very smart and personable, and someone I felt very comfortable with, so I told her that if she really had nothing to do and wanted to come help me build stuff, I'd be happy to have her. It was an innocent offer. I wasn't hitting on her. I was just being a nice guy.

Because she was excited about the offer (she said she had wanted to become *more handy*—she even told me about her little pink toolbox, complete with electric drill—it was really quite sweet), she talked to several people in the department about the prospect. Unfortunately, one of those individuals approached me later and said, "I understand you will be taking advantage of our 25-year-old intern this summer." The individual later said she was kidding, but she knew I'd had youngish girlfriends in the past and I think she was really being protective. Be that as it may, I started to wonder if the girl, after having talk to that faculty member, might think I was setting myself up to make a play for her. My solution was to send the girl an email designed to assure her of my intentions. I did a ham-fisted job of it, and it was not well received.[16]

Finding myself in the doghouse, I talked to her one last time before summer vacation. I apologized for irritating her, said she was a really good teacher who I knew the kids really liked, and told her I wanted her to feel completely comfortable working at Poly "next year." To that end, I said I was perfectly willing to do whatever it would take to secure that end. Her remedy, which didn't become evident until the beginning of the next year, was to be passive aggressive and meet any attempt I might make to be friendly with icicles. This was fine with me. Understanding that this was her way of coping, I made every effort to just stay clear of her.

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[16] To give you an idea of how badly I messed up that email, after stating that I knew she had a boyfriend (this, I might add, could have been a huge misstep as the two may have just broken up) and that I had no designs on her, I proceeded to say that some of the projects could span several days, and if she wanted to participate but didn't want to hassle with morning and evening rush-hour-traffic (she lived all the way across town), she could stay over and sleep on my couch. It never passed through my mind that this could be construed as anything other than me being thoughtful. Unfortunately, I didn't leave it at that. I made the monumental mistake (me not being protective of myself) of trying to be funny when I added, "I'd let you sleep on the bed, but you'd have to fight the cat for the space." This was not in my mind a proposition (again, it was me trying to be funny), but after the fact I can see how it might have seemed so. So there I was, again, pushing to be comedic while the effort bit me in the ass. It's almost as though I have comedic Tourette's.

With that in mind, about three-quarters of the way through the school year, almost as though a switch had been thrown, she was back to her old self and everything seemed OK again. Thinking we were finally good, I asked her to read the possible Senior Speech I was thinking about giving during the senior dinner at the end of the year. She read it, didn't like it AT ALL, and we were back to frostiness (the piece *was* funky in a philosophic sense, which is why I'd decided in the meantime to dump it, but I think maybe it was our conversation afterward that tweaked her—I tried to explain what motivated me to write the speech in the first place, but she may have thought I was making commentary on how she had been treating me during the main course of the year—I don't know for sure, but what is clear is that she was definitely backed to being angry). More to the point, she ended the year by complaining to HR about me.

HR can clearly ruin someone's standing in the community (not to mention actually firing you if they think they have cause). They didn't do that. So although the very first thing out the HR rep's mouth was, "You will never again invite anyone from this school to your home for the night," (clearly animating a gross misunderstanding of the circumstance that proffered that offer nearly a year earlier), I was given the opportunity to explain myself, which I did, and I was not fired for what would have appeared *without context* to be a serious impropriety.

This, I think, was a karmic knot, especially as I continued to feel sympatico toward her throughout the ordeal. Still, it rather screamed *protect yourself you fool*, which I clearly hadn't been doing very well to that point. Argh! [17]

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[A dream that rather knocked my socks off.]

The Brothers' teachings gave me a pretty complete view of what a human being really is (no, you are *not* your body). In Volume 1 where I talked about this, I said that when Consciousness has differentiated from

[17] This isn't directly related to this situation, but it's amusing and its distantly related to me screwing up. I don't remember what prompted it, but one of the Brothers once said that one of their chelas had come to them and said, "If there just weren't so many well-meaning people out there . . . " My suspicion at the time was that the chela was pointing out that well-meaning people are perfectly capable of messing things up in a very royal way. If that be the case, it would appear that I, too, may well be "a well-meaning person" as I did mess things up with that young lady rather royally.

its Oversoul to the point where it can begin to experience at the human level, that seemingly singular Higher Self creates out of the stuff of thought an interface that stands between it and the physical world. That interface, called *the child-self*, is what you and I identify with when dealing with life. The High Mind, which works with karma to draw experience to the child-self to help it grow in a spiritual sense, is, in other words, like a parent.

Although the High Mind might whisper wisdom into the ear of the child-self on occasion,[18] it is primarily the child-self that makes decisions while in a body. From decisions made comes more experience as the self moves along its path. Hopefully, as time proceeds, the child will build into itself qualities that are lasting in a cosmic sense (lovingness, compassion, etc.) and thus will become more and more *real*. And when the enlightenment of the Buddhas comes, you end up with a whole, fully functioning Being, a grown-up child-self, that is now independent of its parent, the Higher Self.

In short, what we are looking at with a normal, typical human being is *two* Beings in one, the teacher/parent self (the High Self/High Mind) and the developing child-self.

As I pointed out earlier (I think), I have been doing a meditation at the beginning of the day in which I give gratitude to the Brotherhood for its presence and all it does. I then acknowledge my brothers and sisters in their efforts to evolve (I do more, but that's the part that's important here).

As for my brothers and sisters, the individuals I project lovingness toward are usually people in power or my friends and acquaintances or people I know are having trouble dealing with life (imagine what it must be like to live in Gaza today). In doing this, I both acknowledge and giving gratitude to the High Minds of those individuals, and I project the hope that the highest in their child-selves will shine through in the best way possible. It is, in other words, a kind of blessing. I don't expect to get anything back from the effort, it is just me trying to send the best, kindest thoughts I can out into the world.

One of the individuals I have occasionally projected thought of this kind toward was that young woman teacher.

When someone does something like this (projecting lovingness and support toward another), it's really a leap of faith. Someone like myself never gets a message back saying *thought received*, which brings me to *the why* of this section.

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[18] Interestingly, Zen koans ("what is the sound of one hand clapping?") are designed to exhaust the rational mind so the self has a chance to hear that whispering.

Dreaming is a funny thing. As best I understand, during dreaming a part of the self refocuses into the inner worlds to the exclusion of all else. When you appear to "meet" someone in a dream, it's very, very, very rare that you are actually communicating with the actual person (though there have been a few instances in my life when I know that's what's happened—I talk about one such experience in the next chapter).

That said, the night before the last day of school this year, I had a dream. It didn't have any of the standard symbolism I run into when a dream is meant to be prophetic, but it was interesting, nevertheless. I was sitting next to a glass door. I was surprised to see the young woman approach, then walk through the door with a friend. Because I saw her before she saw me, and because I didn't want to make her uncomfortable, I put my head down pretending not to see her at all.

Seemingly out of the blue, she tapped me on the shoulder. I looked up and she said, "Thank you for trying to be friends with me." Then I awoke.

With the exception of that short period at the end of the third quarter, this was a presentation of kindness the woman never showed me throughout the year. But it was heartfelt, almost like something you'd expect a parent to say to someone who had been kind to its child.

In fact, that is what I think was happening. I think her High Mind, her parent-self, was letting me know that my thoughtfulness toward her, even in the face of superficial rejection-as-a-friend, hadn't gone unnoticed. I don't think Beings generally communicate with one another through dreams, but in this case, I think her High Mind was doing just that.[19]

My experience with the woman was sad. I really liked her, and I really didn't want her to be mad at me. But I also think it had to play out as it did, because I think it was important for me to see in a concrete way that the projecting of kindness toward someone really is a substantive thing on the inner levels. The child-self may not accept the offering, but the High Mind will.[20]

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[19] This has changed the way I look at others, especially those who are failing as human beings. I have known this intellectually, but standing behind every child-self is a High Mind that dearly wants the best for its child. Even when around people who seem to be horrible human beings, there is always that *other self* there to connect with and support.

[20] I told Cathy about the dream, and she said it really lifted her up. She does meditations like this all the time, but as I said, you never really get proof that what you are doing is having an effect. This isn't surprising. The first rule of chelahood is *to act on behalf of the whole of life without thought of recompense*, which kind-of dampens the expectation of acknowledgment. Still, this was as close to a proof either Cathy or I have ever had, and because we are just normal people, it was very appreciated.

[Going from the profound to the ridiculous, my favorite movies . . .]

During the early part of my time at Poly, it was not uncommon for me to gather up my semester exams, get on a plane, and fly to a ski resort where I would ski during the day and grade finals at night. The grading had to be done, after all, but it didn't matter where or when I did it as long as the grades were turned in on time.

I was in Frisco in the Copper Mountain area one year (this is close to Vale and Breckenridge in the Colorado Rocky Mountains), and having completed my grading went to a Blockbuster's Video Rental store to get something to watch. What struck me was how many of their titles I'd already seen.

That, in turn, motivated me to start thinking about *listing* all the movies I had seen over the course of my life, which is what this is (I should probably do it for books, too, but I don't have the heart). I started by using IMBD.com to remind myself of the titles I'd seen for each year. That yielded over 1400 movies. As that would take, what, a dozen pages to present, I've paired the list down to movies I remember thinking were cleverly written or thought-provoking or just fun. That number sits at around 400, which is still a ton. Because my footnotes use a smaller font, I'm putting the main body of the list in a footnote at the bottom of this preamble.

I should note a few things. First, there are two movies that are my all-time favorites. I'll say a little something about them below. Second, the rest of the movies fall into one of two groups. The first has movies that were made between 1961 and today; the second has movies made before then. As those earlier movies had actors in them that many don't know, I'm going to list them, then say a little something about each (and I know, given my earlier observation about needing to not allow myself to defocus into movies and books, this is probably not going to put me in a very good light, but I am human and I have felt the need over the years to decompress, which is what movies do, so there).

First, my absolute, all-time favorite movie was *The Great Race*. Filmed in 1965, it starred Tony Curtis as *the great Leslie*, Natalie Wood as the aggressive reporter/love interest, Jack Lemmon as *Professor Fate* (the villain) and Peter Falk as his sidekick. The story line was an epic car race from New York to Paris, and it is HILARIOUS (a bit long and slightly slapstick, but hilarious).

My second favorite was the 1982 musical comedy *Victor Victoria*. It starred Julie Andrew. James Garner and Robert Preston. In a nutshell,

it was a movie about *a woman pretending to be a man pretending to be a woman*. Again, absolutely hilarious, and it had a great scene where she indignantly sings the resonance frequency for all the glassware in a restaurant where the manager has offered her a meatball for sex; and when she hits that note, everything made of glass—water glasses, wine glasses, martini glasses, bottles, glass-faced cupboards, *everything*—explodes. (This was scientifically unrealistic—each piece would have had its own, different resonance frequency, but it was still hilarious.)

As for movies that were made mostly before I was born:

The Thin Man (1934): Nick and Nora Charles (William Powell and Myrna Loy) are sophisticated, upper-crusters who solve crimes (there were six in the Thin Man series).

White Christmas (1954): Bing Crosby and Danny Kaye (with Rosemary Clooney) put on a show at their WWII commander's failing Vermont Hotel during Christmas.

The Court Jester (1955): Danny Kay hilariously takes the place of the court jester in this fantasy kingdom, not knowing that the real jester is an assassin.

Bringing Up Baby: Carey Grant (whose real name was Archibald Leach) and Catherine Hepburn deal with a leopard named Baby.

Guess Who's Coming to Dinner (1967): Spencer Tracy and Catherine Hepburn are parents who are just meeting their daughter's black fiancée, played by Sidney Poitier.

Top Hat (1935): Fred Astaire and Ginger Rogers dance their way through a European romp (one of the more fun observations made by feminists in later years was that everything Fred Astaire did—he was an amazing dancer—Ginger Rogers could do . . . backwards).

Singing in the Rain (1952): Gene Kelly (another amazing dancer), Debbie Reynolds and Donald O'Conner try to turn a nasal-toned silent movie star into a talkies star.

The Trouble With Harry (1955): An Alfred Hitchcock movie about a wife who learns that her dead husband was not who she thought he was.

The Sound of Music (1955) and *Mary Poppins* (1964): Julie Andrews in stories we all know.

Wizard of Oz (1939): Judy Garland in the story we all know.

Around the World in Eighty Days (1957): David Niven as Fileas Fog.

Thank you, Jeeves (1936): David Niven as an aristocrat.

All of *the Road* pictures in the 1940's and 1950's with Bing Crosby, Bob Hope and Dorothy Lamour.

Additionally, I remember (and really liked): *Meet Me in St. Louis*

(1944); *Brigadoon* (1954); *South Pacific* (1958); *The Quiet Man* (1952), *Seven Brides for Seven Brothers* (1954); and *Some Like It Hot* (1959).

Lastly, all those other movies.[21]

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[21] **1961**: 101 Dalmatians; **1962**: The Music Man; McHale's Navy; **1963**: It's a Mad, Mad, Mad, Mad World; The Pink Panther; Donovan's Reef; **1964**: Mary Poppins; A Hard Day's Night; Spinal Tap; **1965**: The Sound of Music; Help!; The Great Race; Cat Ballou; The Sons of Katie Elder; What's New Pussycat; Get Smart; Those Magnificent Men in Their Flying Machines; **1966**: The Good, the Bad and the Ugly; A Funny Thing Happened on the Way to the Forum; The Endless Summer; **1967**: The Graduate; In the Heat of the Night; Guess Who's Coming to Dinner; How to Succeed in Business Without Really Trying; The Magical Mystery Tour **1968**: The Producers; Yellow Submarine; Funny Girl; The Odd Couple; I Love You, Alice B. Toklas; Inspector Clouseau; **1969**: Butch Cassidy and the Sundance Kid; True Grit; Alice's Restaurant; **1970**: M*A*S*H; Woodstock; Little Big Man; The Private Life of Sherlock Holmes; A Man Called Horse; The Owl and the Pussycat; Let It Be; **1971**: Tales of Beatrix Potter; Bedknobs and Broomsticks; **1972**: What's Up, Doc?; The Tall Blonde Man with One Black Shoe; Tales from the Crypt; **1973**: The Sting; American Graffiti; Sleeper; **1974**: Chinatown; Young Frankenstein; Murder on the Orient Express; Blazing Saddles; The Canterville Ghost; **1975**: Three Days of the Condor; The Rocky Horror Picture Show; **1976**: All the President's Men; Murder by Death; Silver Streak; The Shootist; The Man Who Fell to Earth; **1977**: Annie Hall; Star Wars Episode IV; Close Encounters of the Third Kind; High Anxiety; **1978**: Heaven Can Wait; Death on the Nile; Dawn of the Dead; National Lampoon's Animal House; **1979**: The China Syndrome; Star Trek—The Motion Picture; The Electric Horseman; **1980**: Star Wars Episode V—The Empire Strikes Back; The Blues Brothers; The Gods Must Be Crazy; Stir Crazy; My Bodyguard; **1981**: Raiders of the Lost Ark; **1982**: Tootsie; Victor/Victoria; Gandhi; E.T. the Extra-Terrestrial; Fast Times at Ridgemont High; Dead Men Don't Wear Plaid; **1983**: National Lampoon's Vacation; Yentle; War Games; Risky Business; **1984**: The NeverEnding Story; Beverly Hills Cop; Indiana Jones and the Temple of Doom; Ghostbusters; Sixteen Candles; Star Trek III—Search for Spock; Police Academy; Romancing the Stone; The Natural; **1985**: Back to the Future; The Breakfast Club; **1986**: Ferris Bueller's Day Off; Top Gun; Hannah and Her Sisters; Big Trouble in Little China; Star Trek IV—Voyage Home; Crocodile Dundee; **1987**: Good Morning, Vietnam; Moonstruck; Planes, Trains and Automobiles; Spaceballs; The Princess Bride; Can't Buy Me Love; Throw Momma from the Train; **1988**: Who Framed Roger Rabbit; Die Hard; Beetlejuice; Coming to America; Scrooged; Big; Bull Durham; **1989**: Indiana Jones and the Last Crusade; When Harry Met Sally; Field of Dreams; Dead Poet's Society; **1990**: Back to the Future, Part III; Dances With Wolves; Total Recall; The Hunt for Red October; Quigley Down Under; **1991**: Regarding Henry; The Doors; Star Trek VI; The Rocketeer; Hook; Soapdish; **1992**: Unforgiven; A Few Good Men; My Cousin Vinny; A League of Their Own; The Bodyguard; **1993**: Jurassic Park; Groundhog's Day; Mrs. Doubtfire; Dazed and Confused; The Sandlot; **1994**: Forest Gump; Four Weddings and a Funeral; The Mask; Thumbelina; **1995**: The Usual Suspects; Ace Ventura—When Nature Calls; Bad Boys; Babe; The American President; Water World; Grumpy Old Men; Operation Dumbo Drop; **1996**: Happy Gilmore; Independence Day; **1997**: Wag the Dog; The Fifth Element; The Man Who Knew Too Little; Gross Pointe Blank; Men in Black; Liar Liar; The Game; Mousehunt; 8 Heads in a Bag; The Postman; **1998**: Shakespeare in Love; The Big Lebowski; **1999**: The Matrix; Office Space; American Pie; Austin Powers; Galaxy Quest; Notting Hill; Star Wars, Ep 1 (The Phantom Menace);

The Mummy; **2000**: Almost Famous; O Brother, Where Art Thou; Finding Forrester; The Whole Nine Yards; The Legend of Bagger Vance; Miss Congeniality; How the Grinch Stole Christmas; **2001**: Harry Potter and the Sorcerer's Stone; Shrek; Monsters, Inc.; The Mummy Returns; Ocean's Eleven; American Pie 2; Legally Blonde; Crocodile Dundee in Los Angeles; Mulholland Dr.; **2002**: The Lord of the Rings—The Two Towers; Stars Wars Episode II—Attack of the Clones; Harry Potter and the Chamber of Secrets; Ice Age; Minority Report; Sweet Home Alabama; The Tuxedo; Big Fat Liar; Star Trek—Nemesis; I Spy; Van Wilder; The Country Bears; Kung Pow—Enter the Fist; Secretary; **2003**: The Station Agent; Kill Bill 1; Love Actually; Piece of April; Old School; American Wedding; School of Rock; Lost in Translation; Open Range; **2004**: Kill Bill 2; Shaun of the Dead; The Terminal; Garden State; I Robot; 50 First Dates; The Village; The Motorcycle Diaries; Harry Potter and the Prisoner of Azkaban; Man on Fire; The Day After Tomorrow; Harry and Kumar Go To White Castle; Wimbledon; National Treasure; The Girl Next Door; Around the World in Eighty Days; The Chronicles of Riddick; **2005**: Wallace and Gromit: the Curse of the Were-rabbits; Thank You For Smoking; Star Wars III—Revenge of the Sith; The Producers; Madagascar; **2006**: Pan's Labyrinth; The Prestige; Little Miss Sunshine; Babe; Tenacious D; Pirates of the Caribbean—Dead Man's Chest; The Illusionist; The De Vinci Code; Night At the Museum; Flushed Away; Happy Feet; **2007**: No Country for Old Men; Superbad; Shooter; Charlie Wilson's War; Hot Fuzz; **2008**: Slumdog Millionaire; Kung Fu Panda; Indiana Jones and the Kingdom of the Crystal Skull; Gran Torino; You Don't Mess With the Zohan; Hancock; Burn After Reading; Get Smart; Outlander; Inkheart; Star Wars—The Clone Wars; **2009**: Fantastic Mr. Fox; Inglorious Bastards; Avatar; Coraline; 500 Days of Summer; Sherlock Holmes; Zombieland; Star Trek; The Blind Side; **2010**: RED; True Grit; How to Train Your Dragon; Alice in Wonderland; Despicable Me; **2011**: Harry Potter and the Deathly Hallows; I Am Number Four; The Girl with the Dragon Tattoo; Green Lantern; Pirates of the Caribbean—On Stranger Tides; Moneyball; Sherlock Holmes—A Game of Shadows; Tinker Tailor Soldier Spy; The Adjustment Bureau; Cowboys and Aliens; Tower Heist; Puss in Boots; Salmon Fishing in the Yemen; Hick; Mr. Popper's Penguins; The Big Year; **2012**: The Hobbit: An Unexpected Journey; The Hunger Games; Django Unchained; Snow White and the Huntsman; Jack Reacher; Battleship; Rise of the Guardians; Seven Psychopaths; Hotel Transylvania; Ice Age: Continental Drift; The Three Stooges; Frankenweenie; Chasing Mavericks; Newsroom (this was a 3-season TV show that felt like a movie); **2013**: Star Trek Into Darkness; Pacific Rim; The Secret Life of Walter Mitty; Ender's Game; Gravity; The Lone Ranger; Oz the Great and Powerful; 2 Guns; Warm Bodies; Monsters University; A Good Day to Die Hard; RED 2; Bad Words; Austenland; **2014**: Interstellar; X-Men—Days of Future Past; Into the Woods; Divergent; Paddington; Edge of Tomorrow; Maleficent; Kingsman—The Secret Service; Penguins of Madagascar; The Hundred-Foot Journey; A Million Ways to Die in the West; Veronica Mars; Vampire Academy; Draft Day; **2015**: The Martian, Star Wars Ep VII; Bridge of Spies; Spotlight; The Man from U.N.C.L.E.; **2016**: Deadpool; Dr. Strange; Fantastic Beasts and Where to Find Them; The Accountant; War Dogs; Jason Bourne; Eddie the Eagle; **2017**: Three Billboards Outside of Ebbing, Missouri; Murder on the Orient Express; Wonder Woman; Star Wars Ep VIII; **2018**: Paddington 2; Crazy Rich Asians; The Old Man and the Gun; Bohemian Rhapsody; Hotel Transylvania 3; **2019**: Once Upon a Time in Hollywood; Ford vs Ferrari; Knives Out; Avengers-Endgame; Yesterday; **2021**: It Was Always You; **2023**: Dungeons and Dragons . . . and for the last several years, most all the mystery, romance and Christmas Hallmark TV movies.

Chapter 52

Afterthoughts and Stuff That Didn't Fit 2 --The Laddy Did His Best--

[Continuing on with "stuff."]

_____x_____

[This was written before Thanksgiving, 2013, then edited after Christmas.]

I haven't been feeling well lately. My head feels foggy, like there is pressure inside it edging toward a headache (but not quite). I remember my mom telling me that when things weren't right with her health, even when it wasn't demonstrable, she always knew because she wouldn't want to do anything. I never really understood what she was talking about. Now I know. There are stretches when absolutely nothing interests me—not food, friends, not school or home projects that would normally rev me up, nothing. (Oddly, I've noticed that if I take two Excedrin, all that evaporates and I'm back to my old self.) My neck hurts. My legs fatigue almost immediately when I ride my bike daily to school (not having been able to exercise after the surgeries I've had recently has been a killer—I really haven't recuperated yet). I don't have much spring to my step at this point.

Just after the fused-disk surgery in my neck, I had horrible nerve pain radiating from my neck across my shoulder. The surgeon gave me a painkiller called Tramadol, which he said was non-narcotic, to deal with the problem. After that particular difficulty went away, I continued taking it because it took the edge off of the foggy-brain problem. It was prescribed to be taken every four hours, but I didn't want to become dependent so I

only took one per 24 hours. Because I was still in pain, and to help the neck out, around noon I'd additionally take one 800 mg ibuprofen, and in the afternoon, two aspirin-less Excedrin (according to the label, I *could* have taken eight of these per 24-hour period but didn't). With time, the effectiveness of this concoction diminished, but again I refused to *up the dosage* because, again, I didn't want to get hooked.

I talked to my neurologist. He suggested trying at low dosage an anti-seizure drug called Topiramate (it was actually prescribed to deal with my migraine headache problem). After two or three weeks, I chose to stop taking everything but that one drug. The stoppage impacted my body like nothing I've ever experienced.

I suddenly felt OLD. I literally creaked when I'd stand up, even after sitting for only a few minutes. My body seemed to be collapsing and my mental state went to permanent milk-toast (I could still teach OK, I just wasn't interested in doing anything outside what was necessary). In short, FOR A FEW DAYS I FELT LIKE MY BODY WAS TOTALLY SHUTTING DOWN AND IT WAS TIME TO DIE . . . for real.

With that as background, last night I had a dream. I'm not remembering my dreams well these day—not like I used to—but when I woke up, I could just barely remember that it involved me thinking about writing in my autobiography. And as I was thinking in the dream about what I should be writing, a voice kind of materializes out of nowhere. I couldn't remember what it was saying except I had the feeling it was being sympathetic.

During school, the dream peaked its little head through more and I got a better look at it as my very creaky body was complaining and I was wondering whether I would be dying sometime over the Thanksgiving vacation (really, I can't stress how truly I thought it was shutting down the way bodies sometimes do just before death—every part of me ached).

My brain quietly chewed on the dream until just this evening (it was a testament to how bad a shape I was in that it took so long for the revelation to happen). That is when it dawned on me that the voice that materialized wasn't me thinking what I should be writing in my autobiography, it was Rolf saying, "The laddy, he did the best he could." It was *his* estimation of what should go into my autobiography.[1]

I'm not generally sentimental. I am, after all, used to being by myself. But I have to say that when it hit me what had happened, I choked up. Alone in the world, I was facing serious mental and physical debilitation,

[1] If you haven't read Volume 1, you won't know that Rolf was a chela on the other side who regularly came to talk to us through Kay.

and the next thing I know this thing happens that lets me know that I am not alone. Nobody is every truly alone. It's just that most people aren't given the gift of knowledge to that effect.

It was something I needed, though, knowing that there was a friend looking out for me, even if it was from across the line. That Thanksgiving, I really did have something for which to be thankful.

As an interesting aside, about two weeks after I stopped using the painkillers, my body seemed to find an equilibrium point and everything smoothed out. I stopped hurting constantly and seemed to regain my stamina, more or less (I even went surfing during Christmas vacation and didn't crash energy-wise due to the exertion). It would seem that my taking the painkillers had removed from the body its *need* to deal with pain. When that happened, the body kind of lost its *ability* to do so. So when the painkillers stopped, all of the body's discomfort was no longer masked and there it was, not in a position to deal, and there I was, hurting to beat all.

As I said, I thought it was time to die. Very interesting, and it gave me a first-hand look at why people are so easily addicted to pain killers. Once you start, the body loses its ability to independently cope.

_____x_____

[Twilight time? I'm writing this during the second semester of the 2013-14 school year.]

I have spent the last two weeks digging a trench down the length of my house on the south side (the side that doesn't have my driveway). You might wonder why.

No, I don't mean, "What was the trench for?" That's easy. I wanted sprinkler capability throughout my property, and to do that I need to get water via a PVC line from my front yard sprinkler system into the back yard. The *why* that is interesting is why the work didn't take half a day to do but, rather, took two weeks.

The answer to *that* question is simple. The two surgeries I've had in the last year have stopped me from exercising, so I've lost all sense of stamina and now, when I work hard for twenty minutes, I have to lie down for half-an-hour to recoup . . . really. My chest tightens up, my heart hurts and I feel like all the energy I ever had has been sucked right out of my body.

I used to unconsciously enjoy the sense of physical pain that came

with extreme exercise. I can remember the last two weeks of summer vacation when I was in high school. I'd lie in bed every morning with every neuron in my body yelling OUCH, OUCH, OUCH because I'd push them to the limit during the two-a-day football practices they'd been subjected to on the previous day (this was way before weight training, and unlike today, CIF would allow team to practices at the beginning of the school year for only two weeks). I really liked that feeling. It felt like I was doing something useful for my body.

This was different. This was debilitation personified. I wasn't the guy I'd been a year earlier.

This was so not me. In looking back, I can see I've done a lot of physical labor in my life (this was probably a genetic thing—my mom was a serious, physical worker when need be).[2] Examples:

—There was all the work I did for my stepdad when I was in high school, picking up houses he was building (no, not literally *picking them up*—we are talking *cleaning them up*; I always found it amusing when I would say that and people would confuse the two sentiments). This often entailed moving enormous piles of lumber from the front where it had been dumped to the back where it was safe, and moving similarly enormous piles of rubbish from the back to the front where it could be picked up. I got very good at handling a heavy, awkwardly stacked wheelbarrow.

—In the house my stepdad bought just up the street from Kay's years ago (that was where I was living before I moved into Kay's back bungalow), I stripped all of the multi-paned windows in the house (maybe fifty of them) down to the wood, rebuilt the ones that needed help, then reglazed, primed and painted them. I then removed the veritable jungle that was the front yard, which doesn't sound like that big a deal but was (I so wish I'd taken pictures). That feat included unearthing somewhere in the vicinity of four-hundred, hand-sized river rocks that were all over the yard at a depth of maybe three inches below the surface, and taking them back up to Eaton Canyon for release back into the wild. I then removing what was literally wall to wall planting of every kind of vegetation imaginable (the previous owner, a woman, had for years been wandering around the neighborhood at night taking clipping of anything she liked, so the density of plants was amazing—in a two-square foot area, I had to dig up a mature rose bush, a four-foot high cactus and a geranium . . . ALL IN THAT TWO-FOOT SQUARE AREA . . . the whole yard was like that). I put an

[2] I remember coming home from San Marino High School one day to find her hanging out one of the second story windows, craning to painting a shutter.

ad in the Penny Saver and had someone come and remove what turned out to be over two-hundred-fifty bulbs that were all over the yard between all the plants and rocks. And I had to remove a ten-foot-high cactus that was growing in one corner. I leveled the stripped yard, then planted grass . . . and that was just in the *front* yard.

—I built from scratch somewhere around half of the bookshelves in Kay's house.

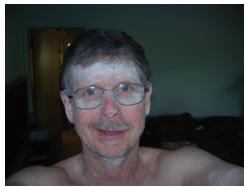
—I took the door off Cathy's garage and made it into a wall, complete with two windows. I then insulated the garage's interior, dry walled it, put in new electrical and re-did the side entry (I had help with the electrical). I then built bookshelves all over the place so that she and I could transfer some of the books in Kay's house (remember, she had that 10,000-book library in her home) out of Kay's house and into this auxiliary library so one could actually walk through Kay's house unimpeded.

—I re-roofed Kay's house for her, maybe twice, which included preparing the roof, hand-carrying fifteen to twenty *90-lb felt roofing rolls* up a ladder (did I mention doing this by hand . . .), rolling out the felt, then gluing and nailing it down (that was the way it was done in the old days), all during the summer when the temperature was in the 100's. It was hot, sticky, gooey work, but I did it because it needed doing and because Kay didn't have the money to have professionals do it for her.

—I did at least some of the carpentry work that created the extension on the garage/artist's studio (i.e., Kay's bungalow) that produced the loft area I slept in for nine years.

—When Kay died and I bought the house from her estate (or, more accurately, from Cathy, who the house was left to), the kitchen was antiquated. It had a great stove, but there was a drop ceiling made out of frosted, corrugated, plastic squares with fluorescent light rods illuminating the room from above. It gave the kitchen a mildly claustrophobic, seven-foot look (see photo). I tore out the false ceiling finding on the actual ceiling above an expanse of cracks that would have rivaled a spider's web. I spackled the entire area, then sanded it with a vibrating sander.

I was cocky enough to do all of this but not bright enough to mask the rest of the house off from the work, so when I got done with the sanding, not only was I covered from head to foot with spackle dust, EVERY-



THING IN THE ENTIRE LIVING ROOM, including all the stuff I'd moved from the kitchen to make room for the work, was covered with a fine layer of white dust. The ship, which was one of the few things I kept from my dad's estate (see photo), sits on what was supposed to be a dark wood chest, and the cherry wood chest shown in the photo below is supposed to be cherry colored, also.

The living room had hundreds of kitchen items in it, all covered with dust. I had to pay my sister $100 to come in and hand clean everything. The final kitchen area turned out pretty good, though, complete with a windowed area to show off all the cool glassware and dishes (see the photo on the next page).

I had a guy put recessed lights in the actual ceiling. I had a guy come in and cover the counters with granite (doing electrical is always dicey, and I'd have never been able to do the countertop myself—the pieces weighed a ton and the touch needed to do a good job just wasn't part of my skill set). I removed the twenty drawer-faces and thirty-two cupboard doors, had new doors and faces fabricated, attached the hardware to the refaced surfaces and installed everything myself. I then painted the whole room (again, see the photo on the next page).

I intended to lay one-foot ceramic squares for flooring, but fortunately my next-door neighbor had a handyman staying with him (the guy was doing work for him). I got to know him and decided the better part of valor

would be to let someone who actually *knew* what they were doing (like the guy) lay the floor. Thank God I did. A few years later, I laid tiles in the bathroom floor (self-leveling concrete *is* a trip) and the end result was a floor that looked as though a drunk monkey had done the work. After all of that, the kitchen turned out looking great, at least as far as I'm concerned.

_____x_____

[A short while ago . . .]

So here we are, me feeling like an old man . . . except just a year ago I got a wild hare and decided it was time to redo the back yard, which was a veritable jungle at the time. I hadn't watered it since Kay died twelve years ago, and although there was a lot of green, the place was a mess (see photo to the right) and didn't look at all like a nice back yard.

There was also an area next to the house (bottom photo) that had always been filled with weeds. It was good size (10'x12' bordered by that two-foot-high brick wall in the photo). I decided it would look better bricked over with, maybe, a por-

table barbecue in the area. I don't eat meat, but what the hey, barbecues always set a nice tone.

On top of all that, I needed to rebuild the back fence. It was redwood and had been in the yard as long as I could remember. I had reinforced it for Kay years earlier because the redwood posts had rotted, but now even the fix was rotting and the asparagus vine the back neighbors had growing on it as a green backdrop for their yard was pulling the structure down.

I started by mortar and bricking in that 10'x12' area next to the house. I got everything I thought I'd need from Home Depot, had it delivered, then wheel barreled everything back into the back yard (the first two photos show the stuff).

If all I had to do was mix the mortar in a wheel barrel, lay down a bed of mortal and place the bricks, the process would have been simple (see the start of that process in the bottom photo). Once done, I'd have used the special cake-decorating-like grout bag they use to shoot grout between the bricks to finish the job off, and all would have been well.

I got the bricks all laid out (photos on the next page), but about halfway through the grouting process I had to stop everything to have surgery on my shoulder. I seemed that I had a congenital defect in the head of my humorous where it fit into the ball joint of my left shoulder, and because it had been giving me trouble, it needed to be fixed with the operation.

In fact, I had gone in to see the orthopedist (Dr. Panossian—his kids are currently going to Poly) who had worked on my knee years earlier. He had me do an MRI which

identified the shoulder problem. A date was set for the procedure that was going to put things back together appropriately.

Unfortunately, between the time I had the MRI and the time I had to go in for the surgery, I managed to find myself with eight 90-pound bags of high density, self-leveling concrete in the trunk of my car. I couldn't leave them there, and if the surgery went as expected, I wasn't going to be able to lift anything heavy for six months. So, brilliant soul that I was, I dead-lifted them out of my trunk, put them in my wheel barrel and wheeled them to the back forty where I unloaded them. In doing so, I apparently really messed up the shoulder. So when the good doctor got into the shoulder, he found not a single large piece of bone he could tack back onto the damaged area but, rather, what he called *corn flakes*—lots and lots of little pieces of bone, all of which he had to meticulously remove.

The upside was that because he couldn't reattach anything (all he did was clean out the area), I healed in a relatively short period of time and was able to build the fence, which I'll talk about shortly. The long-term downside was that three years later (as I was writing this), my shoulder had begun to act up again.

One way or the other, I finished the grouting with one arm, transferring the dry grout with one hand to a large Rubbermaid storage container, mixing the grout with water with one hand, putting the grout into the grout bag with one hand, then *using* the grout bag with one hand. It's a wonder I got the job done.

As I said, I had to rebuild the redwood fence across the back of my property (the photo to the left shows the back yard, old fence included, before I cleaned the area up to store the wood and concrete needed for the projects—see second photo).

The negotiations required to get my back neighbors on-board would have made Kissinger envious. I needed a high fence, which is technically illegal unless the neighbors agree to it, because my yard is several feet higher than theirs and because the back of my house is several feet higher than my back yard (the lot slopes considerably to the rear). A six-foot fence would have allowed me to sit in my bedroom and look down into their living room (and vice versa). Not a good thing! Solution: I built the fence ten-feet-high.

The old fence was rotted and grayed and in generally bad shape. I had additionally stored a wood pile against it (look back at the photo at the top of the page), so the fence was badly infested

with termites. The bottom photo on the previous page shows the work site in progress along with my very cool Chinese Elm (for scale, note the six-foot, A-frame ladder next to the tree).

The photo to the right shows the completed fence and the yard more or less stripped of its vegetation.

To end the summer, I crowbarred up some of the asphalt that had been laid down seventy years earlier as a base for the badminton court that used to be in the back yard (I wanted to put grass in its place). Every Tuesday night, I would load up my wheelbarrow with large chunks of asphalt and walk around the neighborhood, putting upwards of two-hundred pounds of asphalt in each of my neighbor's trash. How else was I going to get rid of the stuff (though later I was told that there were people who would actually pay to come pick asphalt up—dumb me)?

That was where I stalled out. At this point (this being early 2014), I still need to grade the back yard, put in plants and grass (which I finally did get done—the photos to the right show two views of the area in 2025) and build a new wood deck outside the sliding glass door that connects my bedroom to the back yard.

. . . Except now when I do twenty minutes of work, I have to lie down for thirty minutes to recuperate, so this may be a challenge . . .

_____x_____

[It's 2015 and nothing stays the same. A year ago, I felt like shit. I seem to be back to my old self now, building stuff.]

It's summer and I just built a new patio/deck outside the sliding glass door of my bedroom. There is a two to three-foot drop between the house's floor level and ground level, so a deck is kind of important. The old one, which was small, was rotted (you can't tell from the first photo, what with all the stuff on it, but the structure was in pretty awful shape in any case).

I ran a water line along the side of the house a few years back which terminated at the edge of the house, so after tearing out the old deck I ran a series of water lines from where I'd left off (see second photo to the left). They ran across the yard to a point where I now have stubs ready for sprinkler lines if I so choose, and also a faucet.

The new deck is larger than the old one, and I made the planks run parallel to the house instead of at right angles to the house. It meant I was working with sixteen-foot boards, which was wild, but I think it made the structure look nicer (see the last photo).

Though I didn't do the job with one hand tied behind my back or blindfolded, it took some time and a fair amount of messing to get the stairs right. This was due to the fact that the ground I was working down to was not level. As all the stringers had to be parallel, which was a challenge, each triangle that supports the steps (look at the photo) had to be hand measured and cut (I couldn't do the work with a jig). Once the triangles were placed, I had to put spacers between the triangles and the steps so the boards were both horizontal and parallel. It quite literally took one weekend to do each step. Again, challenging but fun.

The only real bummer to the project was that the redwood, when it was fresh, had a very pretty, rosy red color to it (you can kind of see it in the color of the steps in the photo). I tried to preserve the color, but within three weeks the tannins in the wood leached out and turned the wood a pale, yellowish brown (look at the decking itself to see the color I'm talking about—it's also the color the fence turned to). I really wanted to keep the nice, reddish-pink look, but it just didn't happen. On the whole, though, it was fun thinking my way through what had to be done (that Zen experience I referred to in Volume 1), and it turned out to be a totally worthwhile project.

_____x_____

[Mom's Highland house.]

Aside from bits and pieces of manual labor I've done during my life, the only other major bit of insanity that comes to mind was my part in creating the back yard of my mom's house out in Highland. If you will remember, she bought that house to get herself, Patty and Loraine out of my house after the entire crew had moved in after coming down from Lake Tahoe.

The house she bought was in a brand-new track of houses, but it was a

very nice, two story, five bedroom, four bath home—nothing to sneeze at. All the front yards were landscaped, so the places looked shiny and clean and new, but the backyards were bare. I told mom I would do the work required to get her backyard in shape.

The house had the largest backyard in the complex. You'd think that was a plus, and it was (remember, Patty had two Australian shepherd, Chrissie and Wigman). The problem was that the soil was *fill* that had a very high clay content, so digging into it was like digging into oil-deprived peanut butter. It was cloying and it didn't play well with garden tools.

I brought in a rototiller, thinking I could just turn the soil, but the soil was so dense and unyielding that it just made the tiller buck. It was awful. What's more, it was summer and the temperatures were in the 110's, so I'd be out in the sun without shade in a sweat-soaked T-shirt (no pants, just a T-shirt . . . that was a joke), the consequence of which was that a got a horrible, itchy, sun rash over most of my upper body. Although it's only on select areas now, I have echoes of that very rash to this day.

Anyway, it took a good four weeks to get the trenches dug (by hand), set the PVC piping and sprinklers, run the electrical wiring, hook up the sprinkler timers, build a 15'x15' brick patio outside the back door, build an asphalt-tile roof over the patio, build a special fence and gate to keep the dogs sequestered in a side area and plant the lawn.

It was not a fun project.

_____x_____

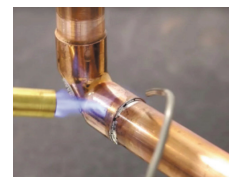
[One other somewhat outrageous project, and sweat soldering . . .]

If you've ever had the thrill of replacing the sprinkler system in the front yard of an old house, you will know that in the old days, they didn't use pipes made of PVC (Polyvinyl Chloride, a plastic polymer) like today, they used steel pipes. Steel pipes corrode over time, so with time, deposits build up in the pipes and sooner or later, you have very little water flow. Replacing such a system requires digging up the steel pipes, cutting the pipe into pieces small enough to be put in the trash, and either re-digging the trenches or using the old ones to put new PVC pipes in. You have to determine the water-flow rate coming into your system so you can determine your water pressure so you can determine how many sprinklers you can get on each line and how much area a particular line will cover. It isn't rocket science, but it isn't trivial, either.

A few years after I bought the house from Kay's estate, I decided I

wanted to redo the front yard sprinklers. The problem was that it wasn't just the sprinklers that needed help, the water pressure in the house was lousy, also. To fix things, I decided to run a new, copper pipe water line from the street to the house (along with a T connection close to the house to accommodate the new sprinkler system).

Digging the trenches, laying the new PVC lines, putting in the sprinklers, putting in the water valves and connecting the valves to a timer to automatically turn the water on and off, all of that was cake. The real challenge was in working with the copper pipe.[3]



To connect pieces of copper pipe, you have to sweat solder the joints together. This is very fun stuff. You use a small blow torch to heat the copper fittings, and when the metal is hot enough it literally sucks the solder into the joint. It was wild. Doing this, I created a single copper pipe that went from the street to a water cutoff next to the house, then continued on underneath the house. With a T just before that cutoff to allow a PVC pipe to supply water to the sprinkler valves, I was all set. I turned the water off, made all the connection, and all was well . . . almost.

Unfortunately, the absolute last thing I had to do was a little digging near the sprinkler valves, and in doing so I managed to nail the PVC line splitting it. SHIT! I was tired and dirty, but this was a major problem. I couldn't turn the water on at the street without fixing the damaged pipe, and it was getting dark. I raced to Home Depot to get what I needed to make the repair, and in the dark with a headlamp on, made the fix. I wasn't done until around 10 PM. It was quite an adventure.

_____x_____

[Conclusion?]

There really is no bottom line to this chapter, except, possibly, that if you are young and have never found yourself in a position where you've had to build something with your hands (coupled with the thinking that goes along with such an endeavor), I'd suggest you force yourself to give it a try (notwithstanding my experience at mom's). There is something very

[3] I might add, in the middle of all of this, I had a bunch of graduated seniors show up to my house, just to say "hello." I was filthy, but I heard one of the girls rather proudly whisper to her friend, "This was my physics teacher!" Being a sweaty, disgusting mess was, apparently, a badge of honor.

satisfying about having a problem you need to think through, maybe doing some research if need be, then executing a plan to remedy the situation. There is a lot to be said, in other words, for being self-sufficient.[4]

And if you are sitting in some comfortable place thinking that this is not something you will ever have the opportunity to do, think again. The next time you find yourself with a hole in a sock, don't throw the sock away. Buy a packet of sewing needles and some thread and darn the damn thing yourself. Or if that's too much for you, open up a cookbook and follow a recipe. You like to eat, don't you? Homemade food can be really quite good, assuming you have the time to do the work.

. . . And one more thing: It's July, 2020, and I'm just about to put grass in the back yard (you saw a photo of the end result a few pages back). The area hasn't been desolate all this time, though. For a few months each year, always after a rain, I've had wildflowers come, completely out of nowhere, to populate the space (remember, I've *never* watered in the backyard, so the first time this happened, I was amazed). I took the photo shown one year when the flowers were opened to the sun (I was bummed that I didn't think to take the photo when the flowers were completely carpeting the area, as they would do, but what I got was what I got and that's what you will have to be happy with). It was a lovely giftie from nature in any case!

[4] It can also save you money. I got into my shower one night and was met with nothing but cold water. The igniter in the water heater had stopped working. I could have called a plumber to fix the problem, but instead I did some research (I dialed up a YouTube video), went to Home Depot to buy an igniter, and installed it myself. I probably saved myself, maybe, $300 by doing so. Years later, I replaced the valve in the kitchen sink faucet, saving another $300 most probably. Don't get me wrong. Things don't always go as planned. A couple of years ago I tried to fix my 42" Panasonic Viera plasma TV by buying on-line a mother board for it, but that didn't work so I had to buy a new TV. Messing with stuff can be a gas, and it can save you a load of money, but not always.

Chapter 53

Afterthoughts and Stuff That Didn't Fit 3 --Photos Galore--

[Mo photos]

You have probably noticed that there really haven't been a lot of photos in this autobiography. I regret to say that I never was a fan of taking and keeping pictures. When I was young, especially during my time with the Brothers, I regarded life as a series of experiences to learn from in *the now*. If they were hard experiences that stayed with me, it meant I hadn't yet extracted the teaching from them and, as a consequence, they weren't ready to go away. And if they were happy experiences, well, I was grateful for having had them, but they weren't something I thought I ought to attach myself to, so I'd let them go, also.

What I didn't realize until just recently was that being able to recall experiences can change the *tone* of your thoughts dramatically, and that is not necessarily a bad thing. What instigated this insight was kind of bizarre. I was riding my bike home from Poly one chilly winter afternoon, and as I passed the commercial lot located on the corner of San Pasqual and Sierra Madre Blvd, it flashed through my mind that that was the lot where AB and I had bought the Christmas tree we had the year I *had* a Christmas tree.

What surprised me was that the thought really warmed me. I didn't feel abused by the realization that something like that would probably never happen again (the chances of me having another girlfriend aren't great). Instead, I felt good about the fact that it happened once, and that I could focus myself into that time and experience and all the fun that went along with it, and just let it sort of wash over me. And with that, it became clear that there have been lots of things that have happened to me that I remem-

ber only fleetingly, that a photo would have brought back more vividly.

There was one picture, for instance, that I threw away the first few years I was around the Brothers. I really wish I hadn't. It was of the girl I almost married in college (I mentioned this in Volume 1). It was taken at one of our parties somewhere in Phoenix. We were dancing. Being well endowed, she was quite sexy. She also had a big smile on her face and was looking very pretty. I, on the other hand, was looking really pissed with a huge cloud over my head. It was a fantastic metaphor for our entire relationship, and I threw it away because I couldn't see that I would ever have a use for it again. Really dumb!

In short, collecting stuff like photos and videos isn't such a bad idea. None of it is permanent—when I talked to the tech guys at Poly about what would be the best way to embed videos into the digital version of this autobiography, they pointed out that in twenty years the technology that exists today will be obsolete and in all probability, nobody then would be able to *look* at videos generated today (that's why there are none here). Even pictures will go away with time.

Still, having stuff like that for a time is something I wish I had done. I apparently am not a very bright guy!

This chapter is a mélange of photos I *do* have, everything from pictures of my house and the incredibly pleasant bicycle ride I get to enjoy every day on my way to Poly, to that of friends and just stuff. At this point, I don't know how long the chapter will be. It's going to be open-ended.

Anyway, here goes.

_____x_____

[My bike ride to Poly.]

To the left is a shot of the delightfully nice ride I take every day on San Pasqual Blvd on my way to Poly.[1]

[1] This chapter is not about philosophy, but one of the things I noticed one day as I was riding down this street was how unaware I was of the devic forms (the trees) all around me. It was

[The Virginia Ave house and surroundings.]

This first series of photos is of Kay's house, which after Kay died

became my house, in the county strip between San Marino and Pasadena (on Virginia Ave). In that first shot (above), you can see my old 1986 Honda Accord LX (I had it for 26 years) in the driveway. If you look closely, you will also see a lion sitting Sphinx-like in front of the entry next to the car (blow-up to right). Funny story: years earlier, I happen to be riding my bike by a restaurant on Green Street that was

as though I was in my little human bubble, thinking my little human thoughts, completely oblivious to what was outside the bubble. Time after time that realization dawned on me as I made that trip, and time after time it helped me touch the world beyond my small self.

in the process of changing over from steak house to fish place. As I passed by, I noticed they were digging out this great lion. I asked the workmen what they intended to do with it and the foreman said, "Sell it to the first guy with $50." I gave him $20 to hold it for me, went out and rented a trailer (the lion was concrete and weighed a ton), went back, got it and ensconced it in Kay's front yard right where you see it. It took four burly workmen to get it into the trailer and half the neighborhood to get it out, but it was the best $50 I ever spent.

The shot to the left gives another view of the house,

and the second shot shows the front porch.

_____x_____

[Inside the house . . .]

The house was built in 1929. It had a small living room and a small dining room that made an L-shape, and an outside patio off the living and dining room (in fact, the house just to the south has the exact same design). A few years before I arrived, Kay had everything (including the patio) made into one huge room primarily, I think, to provide a space that was large enough for the meetings. I talked about this earlier, including a sche-

matic of the house's original and final layout. As I pointed out there, the result was a very cool, enormous area with twelve-foot-high bookshelves along one wall, a great fireplace along the opposite wall and a very serviceable space in between.

When she did all of this, she changed the entrance into the kitchen, which she modernized, added a service porch and, more importantly, had a second bathroom and master bedroom added-on in the back. It is/was the master bedroom that has the sliding door that opens out onto the deck I rebuilt, and that looks out into the back yard.

The first photo to the right is of me standing in the living room in front of that floor-to-ceiling bookshelf that resides there. (I've included myself to give a feeling for scale.) The second photo below shows that area standing back (to get a panoramic view).

There were books all over the house. The photo to the left was of one wall in the small front bedroom before I cleared all the books out and removed the shelves to make the room into an office for AB when she was here. Notice the door (for scale) on the right. (Also, notice the intricate stenciling on the door—all of the inside doors were that way from the original building—pretty cool!). I've included these photos to give you a feel for what the house was like when Kay was around. There were books literally everywhere.

The photo above shows the living room as viewed from the entry. I've made the picture large to show some of the fine structure of the room. Before the renovation, there was a wall along the line defined by the or-

ange chairs in the photo. That wall separated the living room from the patio area (in other words, where the dining room table is now would have been outside before the house was redone). It may not be obvious from this vantage point, but the beam that spans across that length (it is brown in the photo) is one piece and absolutely mammoth. And although you can't see the lamp itself in this photo, the lamp I talked about from Kay and my life in that healing temple hangs from that beam. If you look closely, you can just make out the attachment-point at the beam's far end.

The grandmother clock at the far right in the room was my mom's (it was a gift to her from my Uncle Sammy, who owned a Maple Furniture Shop out in San Bernardino when I was a kid). The dining room table was the one Einstein had dinner on with Kay and Albert in the early 1930s, though it was originally positioned in the dining room which, at the time, was off to the right. The fireplace was wonderful in the sense that I could get fires going in it that would actually ROAR (you saw a picture of it in action in the Volume 1 photo of AB's Christmas tree scene).

I always really liked the meditating figure over the fireplace. Right in the middle of the photo, there is a three-shelf cut-out in the wall (with gray shutters) in which Kay had some really fine stuff, including a second-century BC, Roman-era glass bowl (she found it in the Try Boutique Shop, but I have no idea where they got it). There were knickknacks of all sorts on the glass shelves mounted in the windows (the shelves are washed out in the photo, but they are there), and in the room there was a wide assortment of things from all over the world (a beautiful foot-and-a-quarter tall, carved Krishna and a similarly tall, carved Quan Yen; a ceramic Ganesh; a plaster statue of Ptah; a sitar and other musical instruments including a piano and an organ . . . just a ton of cool stuff).

The photo to the right shows a shot of the area of the room in which the organ and piano reside (it is being taken from the entry). It is a little hard to see, but the organ is against the wall straight ahead and the piano (an upright) comes out from that

wall—it is obscured by the lamp shade. The wall with the floor-to-ceiling bookshelves (you saw it earlier with me standing against it) is along the right side of the photo. From the photo, you can get a feel for the expanse of the room.[2]

_____x_____

[Delphi, one of my cats . . .]

The last group of house pictures has to do with the cat, Delphi, who came with the house and lived to be around 20 years old. You saw a picture of her in the chapter about AB. This is a little more.

The first is of the cat in one of her favorite positions, curled up. The second is of her underneath the covers of my bed, where she would sometimes hang out.

[2] There is one other feature of the room that isn't immediately obvious but is there. The two paintings on the wall above the organ were done by a Russian artist named Alexei Butirskiy who had a very clever painting style. If you were to slowly dim the light on either one (I installed special spotlights to make this effect stand out), the painting would darken but the supposedly lit windows in the painting would appear to remain well-lit giving the impression that the lights in the room were getting brighter. For those of you who have been to any of my birthday parties, you will know I never let first-time guest leave without seeing the effect. Optically, it is very impressive.

The last two cat photos are of her in her regular napping spot, especially during the winter. It is in the heat-register outlet I built into the bookshelf on the east wall of the front bedroom. The first photo shows the overall set-up with the cubbyhole just to the left of the brown box on the floor. The second, taken at a different time, shows her dozing, all cozy, as heat pours out over her. She was definitely not an abused animal.[3]

_____x_____

[A few odds and ends.]

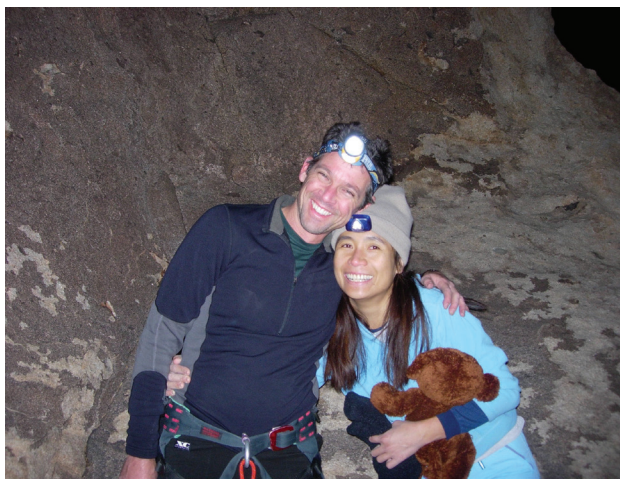
Patty Tsai was a Caltech graduate who came to Poly in 1995 and who was one of the chemistry teachers I was at odds with over the *what are we going to do with the ninth grade curriculum* fiasco. She was a very bright, nice young woman who, as I said during my discussion of that episode, was someone I counted (and still count) as a good friend.

Richard White came to Polytechnic School in (I think) 2004. We got him almost as an afterthought (the administrations kind of wasn't thinking and passed him over during the first round), but he turned out to be quite

[3] Delphi, who was my companion and "little friend" for eighteen years, died on November 11, 2016. I had been giving her fluids daily for at least a year for kidney disease, though I don't think that is what finally killed her. She was just old—20 if my count was correct. As I write this, I miss her (though I don't seem to feel the gaping hole I felt when Gray died). She was a very sweet kitty.

a catch. He was an excellent AP Physics teacher and had a very strong interest in computer science, the latter of which in 2014 culminated in his starting a very popular AP Computer Science course at Poly. He was also a very good rock climber.

As for that last quality, the first year he was at Poly, he suggested a trip to Joshua Tree to rock climb. Neither Patty or I knew how to rock climb at the time, but we went along with several others (I can't remember who they all were—Patty and I were the only two who continued the quasi-yearly tradition all the way through 2015, with Brad, her husband, coming along in later years).



The picture is of Richard and Patty on the one night-climb we did in Joshua Tree. Night climbs are apparently illegal (or, at least, frowned upon), but we did it anyway. It wasn't a long climb and it wasn't a hard climb, but we made it and we slept at the top when we got there. Very fun!

And one more thing: From the beginning, it was obvious that Richard and I would become great friends, which we were throughout my remaining time at Poly. To animate the relationship the two of us had, I've included the URL for a YouTube video he and I made as a preamble to the Summer Assignment for the AP Physics course the two of us co-taught after the school lifted the ban on me teaching the class. That video can be found at https://youtu.be/XydGb5ulODg. Take a look, and be sure to continue watching after everything goes dark—there are out-takes that are a hoot.

_____x_____

(space to doodle)

[Rick Thompson . . .]

Rick Thompson (photo to the right) was a Poly alum (class of 1998—I know this only because it was his year that honored me with the *Teacher of the Year* award, and he pointed that out to me at one point). He came back, as I remember, in 2011 to teach math for two or three years. He had a degree in law (he left Poly to practice law in, I think, 2013), but while he was here he thoroughly enjoyed the traditions of the school. This included dressing up for Halloween. Yo, ho ho!

_____x_____

[A bit of Christmas frivolity . . .]

Although I've only had one Christmas tree in the last forty-years (the year AB was around), I have nevertheless always decorated my house with Christmas lights (the colored kind, not the white ones). So during Christmas season, the outside of my house is ablaze (there was a photo of the outside decorations shown in Chapter 36).

A few years ago, I decided to go wild and additionally decorate my living room. I strung lights around the French doors, then got the bright idea of balling up 300-light strings and hanging them as wads from the ceiling. The first photo on the previous page shows the finer features of the lights. The second photo does a better job of showing the very pleasant, warm, reddish glow in the room (actually, the color-balancing of both photos is off, but that's life). I really do like bright, colored lights. They remind me of fairy lights.

_____x_____

[This is a new section . . .]

It's the beginning of 2025, and the Eaton Canyon fire just ended.

Right at the beginning, I had no idea whether the fire would come my way and I'd have to evacuate (it started about two miles directly north of my home). To deal with all possibilities, I gathered up the few things in my house that were important to me, then took pictures of the interior of the house, just to have a record of what was there. What you are seeing are some of those photos. I'm doing this because some of the stuff is pretty neat, and it would all have been gone if the fire had come my way.

The first photo above is a view of the living room from where Kay would sit during her meetings. Notice the lamp hanging to the left off the huge, central, brown beam, and the cat in the chair.

The second photo is of the grandmother clock located in the far corner of the living room. You can also see some of the knick knacks

that sat on glass shelves in the windows.

The last photo on the previous page is of the rest of the shelved windows on the north living room wall. Notice all the items on the bookshelves (the Egyptian cat goddess Bass next to the statue of Ptah, etc.)

The first photo on this page is looking from the dining area toward the living room's south wall and the organ (notice the piano is missing; I lent it to Amber years ago because Gracie wanted to learn to play). Notice also the paintings on the wall.

To the left is a shot of one of those two paintings by Butirskiy over the organ (I mentioned him in Footnote #1). As the external lighting becomes dimmer, the lights in the windows appear to get brighter (as compared to the rest of the painting). Very cool . . .

The last photo on this page is of knick knacks in the bookshelf next to the organ. Look

closely. There is all sorts of stuff there.

To the right is a photo of the kitchen.

Lastly, the photo to the right a shot of all the knick knacks I have on the fireplace hearth in my bedroom (notice the cat's ball on the rug to the right and a bit of the cat's cat-tree on the left).

That's it for the house . . .

_____x_____

[Photos missed . . .]

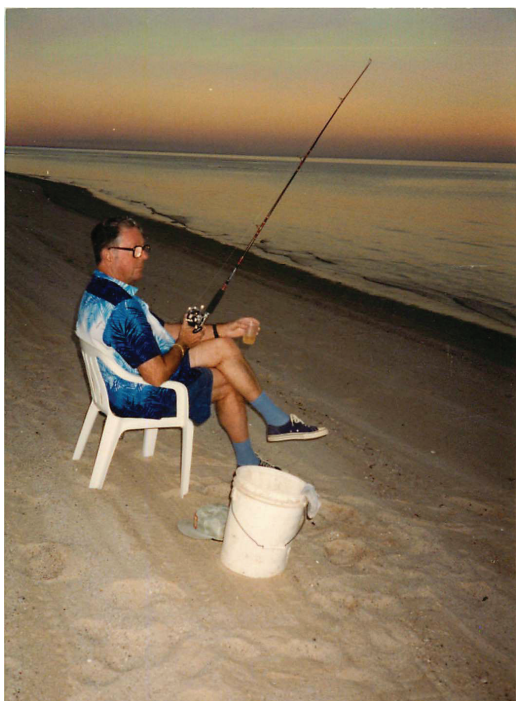
As I said, I dearly wish I had been more of a photo-taker during my life. I had two other cats of note, neither of which I have pictures of. One was Grey, who I talked about in the E.Phil book. Cathy found him at the pound but within a month or two of her bringing him home he adopted me (I was living next door to Cathy at the time) and was my cat for the rest of his life.

I don't remember the name of the other cat, but he was an old Tom

and he was a dear. His owner lived across the street and up several houses from Kay's. I don't think the guy was very nice to the cat because the poor thing would come down to my house and hang out a lot. Additionally, later, when he was living with me, if I didn't want him to go outside, I would sometimes try to block his passage out the door with my foot. Whenever I'd do this, he would pull back and hiss loudly, an odd reaction to that very benign act. At some point he needed to have X-rays. That's when I found out that he'd had two broken ribs. The vet suggested that someone had kicked him. I have a suspicion it was that neighbor.

In any case, when the neighbor got divorced, I'm pretty sure he threw the cat out, so the poor old fellow began spending all of his time in my backyard. It was winter and cold out, so I let him come in and sleep on my bed one night. He was so beside himself that he draped himself across my neck (I was on my back) and went to sleep in that position. I had him until he died of cancer. He very much appreciated me, and I him.

x



[Dad . . .]

The last of my photos for this chapter is of my dad doing one of the things he most loved to do in life, which was surf fishing. He didn't do it much in later years, but I remember him doing it when I was young, either on a beach or from a pier. Besides, I wanted an excuse to put another picture of him in the book, so here it is.

Chapter 54

Afterthoughts and Stuff That Didn't Really Fit In #4 --Late Breaking News--

[It's 2024. This chapter is very much a late edition to this autobiography, mainly because it speaks to four things that happened toward the end of my time at Poly. The first is COVID, the second the building of a solar car by our Engineering Club, the third the Eaton fire, and the fourth the receiving of that year's *Teacher Appreciation Award*. I'll do them in order.]

_____x_____

[It doesn't get more exciting than this . . .]

Everyone knows that the COVID epidemic first peaked its ugly head out at the world in November of 2019. It wasn't until March of the following year that the lockdown happened. How do I know this? I always have my *Annual, Surprise, 35th Birthday Party* around March 13, and in 2020 (I think I was turning 72 that year, but I could be off a year or two) the school had just informed teachers that we would be doing "distant teaching" for the foreseeable future. (I gave people the option that year of not coming to my party, should they be spooked by COVID—Richard and Robin and a few others came—I gave out rolls of toilet paper as party favors, which you should find amusing if you lived the experience and remember having whole aisles of paper products stripped bare in subsequent weeks in pretty much every supermarket in the land—nothing like panic buying to artificially create a household-supplies crisis.)

The experience of distance teaching was truly a trip. I don't use notes when I teach. I know my subject inside-out. I know exactly what comes when, and when class time comes, I just go in and do my thing. As such,

aside from setting up a lab or demonstration, I haven't really needed to prepare for any of my physics class for the last forty-or-so years. All of that changed with distant teaching.

Having access to Zoom was a godsend, but it had its drawbacks. Students aren't used to having a teacher look at them for an entire class period, and that is what Zoom effectively did. To combat the psychological stress, and in deference to the mental health of our kids, the school imposed a restriction on teacher-use of Zoom. We could use it, but we couldn't have focused contact for more than half a period. The problem with this was that most teaching approaches *require* student contact. Having to effectively sign off for half a period really cramped people's style. What's more, teachers were given only ONE WEEK to make the changes needed to accommodate this new circumstance. Google Classroom, Google Forms, KaHoot, Zoom and the avalanche of other on-line tools that teachers were suddenly expected to be conversant with pretty much swamped everyone. Fortunately, I enjoy learning about new things and my brain was still fairly supple, so I was able to do all that fairly easily. I also had in fairly short order a pretty good idea of how I was going to approach all of this.

I started by generating videos. Some of the videos were me showing the kids how to negotiate a particular kind of problem (using Newton's Second Law to determine the acceleration of a system, for instance); some were me doing whole labs, complete with the taking of measurements (or providing the kids with the tools to the take measurements). I would have the kids take some time to watch these, depending upon what I wanted presented, and although they would be using a computer to do all of this, they wouldn't be staring at me staring back at them at the time. Other options for class time were: I could have students watch one of those lecture-like videos, then discuss it via Zoom; I could have them spend time reading through selected sections of the PowerPoints I normally use in class (then I'd point out the important points via Zoom); I could give short in-person lectures punctuated with selected problems the students could do off cameras or in a Zoom breakout room (this last option was good for those who liked to work with others in the class). There were all sorts of possibilities.

The fly in the ointment was that because I was determined to cover everything I would normally covered during a school year, I had to do an enormous amount preparation work to make all of this happen. Making videos takes a ton of time, especially if you are prone to editing to make the final product seem seamless (which I did). And before I could have students go through selected PowerPoints, I had to *read* all the PowerPoints to see how things were ordered. As many of them were seventy to eighty

slides long, this took loads of time.[1] It took time to do the thinking that produced the order required for all of this to flow reasonably. It took time to create homework assignments and tests, and time to grade everything. And, of course, there was the time spent in class, presenting all of this to the students. Sometimes the workload seemed never-ending. I would get up at 7 AM and working straight through till 11:00 PM. For a good year-and-a-half, ALL I DID was work on my classes (though it was, in the long run, rewarding—I had students say at the end of the experience that my class was the closest to a normal class of any they took during the period).

It was, as I said, a real trip, and it may me oh-so-much more appreciative of my life when we got back to normal and all I had to do was walk into class and start talking about the topic of the day.[2]

_____x_____

[the solar car . . .]

I am continuously amazed at the resilience, ingenuity and intelligence of Poly's students (or, at least, some of them). Sometime around 2021, one of our students, Aria Wang, who was a sophomore at the time, started an Engineering Club at Poly. She did this for one reason and one reason alone. She wanted to build a solar car. So somewhere around late 2021, early 2022, Jack Prater arrived at my office with Aria in tow and asked if I would be willing to act as co-advisor to the Engineering Club with an eye to going to Texas in the summer of 2022 to compete in what was called *The Solar Car Challenge*. I had no idea what I might be getting into, but it sounded like fun so I said, "Sure."

The first *Solar Car Challenge* happened in 1994. Every year since, the challenge has either been a cross-country race between Fort Worth, Texas, and some other city in the U.S., or a confined race around the Texas Motor Speedway in Fort Worth, Texas (outside of Dallas). The race Aria was shooting for was the track race. We didn't make it. Instead, we entered the next year's competition, a seven-day, cross-country race between Fort Worth, Texas and Palmdale, California.

Although Aria was the heart and soul of the project, I ended up spend-

[1] I create all my own PowerPoints. I don't follow them slavishly, though, so they needed review before I could use them in this way.

[2] And as an aside, I got COVID twice, once during the pandemic and once a year or two later. What was remarkable was that when I'd feel exhausted and take a nap, I'd still be exhausted when I'd wake up. I had never experienced anything like that before. It was not a nice virus.

ing several hours every Saturday morning for the next year-and-a-half at Poly with various combinations of team members. I spent two Spring Breaks with them, one Winter Break with them and nearly every weekday of two summers with them. The kids did most-all of the work, but I was there to support and kibbitz.

What was remarkable was that by all rights and means, the project should never have succeeded. Every imaginable roadblock presented itself, so much so that Jack was quite certain we weren't going to make it for the July, 2023 competition. Yet with every setback, the students would hunker down, figure out the problem, figure out a solution (or find someone who *could* come up with a solution), and make things right. During the two weeks before we left for Texas that summer, the catastrophes both magnified and increased in number, but Jack stopped expecting everything to come to a roaring standstill because, as he put it, "Every time I bet against the kids, they prove me wrong."

I only wrote one somewhat prolonged discussion of the club and its activities for what was supposed to be the race blog, though what I wrote was never published. What follows is what I said (this was written about a week before we left—I've added a few things that happened after the first writing—they should be apparent as you read). Here is what I wrote:

> For those of you who don't know, the Engineering Club (or a subset of the members of the Engineering Club) at Poly have, for the last two years, been working on building from the ground up a solar car. The aim, at least from the perspective of the advisors (Jack Prater and Craig Fletcher), was to construct a vehicle that would actually just run. That goal was accomplished. We have a car that runs. The student aim was a little more extended. Along with making a car that ran, they also wanted to enter the car in *The Solar Car Challenge*, a cross-country race/derby that runs from Fort Worth, Texas to Palmdale, California over a seven-day span. As far as the kids were concerned, if we didn't succeed in making that event, the project would be a failure (this being, in my opinion, a little short-sighted, but you know how the young can be).
>
> We have been woefully derelict in chronicling the ins-and-outs of the students journey along the way, for which I am ashamed (not deathly ashamed, but still . . .). We should, as the happenings occurred, have reported on:

—those beginning zoom meetings, where we watched the faces on screen dwindle from 20 to 5 after weeks of assigning "homework" (which was really just watching Challenge webinars and creating slideshows to teach the others what we had learned);

—or the months and months of time the twenty or so original team members put in during "Clubs" time during the school's six-day daily rotation, researching how to build a solar car, what parts would be needed to accomplish that task and where to get those parts (not to mention putting together a club website and trying to figure out how we would pay for everything);

—or the time Aikam took to learn how to use CAD software so he could construct for us a three-dimensional rendering of what would become the car's frame;

—or the month-and-a-half it took to figure out how the water-cooled electric motor we bought worked (Jeremy and Ennio figured everything out, but because we were only meeting once for fifty minutes every third day, it took forever to actually get everything hooked up and running), only to conclude that an air-cooled motor would be better (whereupon we laid out still more money for *that* kind of motor);

—or the gobs of time it took to figure out where to get (and what to get) when it came to an electronic accelerator (that was what was needed to modulate the electric motor);

—or the time it took to take apart the rear assembly of the 1997 Suzuki Marauder we used as the rear end of the car (the Marauder was donated to us by a random guy who worked at a motorcycle shop we had contacted at one point—and just so you know, the vehicle we were building was to have two front-end wheels for steering and one rear-end wheel as a drive);

—or pushing the now one-wheeled motorcycle a mile from Aria's garage to Poly with the back end resting on a dolly;

—or the fact that we needed to drive out to Van Nuys to a rental place that had a Surrey Quadricycle we could look at because we'd bought the front-end assembly of the Quadricycle to use as our car's front end, but it came disassembled and there were no instructions as to how to put it together. Along with all that, we had to figure out how to modify the front end to work for our purposes (getting the cable brakes hooked up to a foot pedal was particularly exciting and something we wouldn't have been able

to do without the help of Poly alum Peter Matthiessen—Peter owns a construction company and has a wonderful, old-school machine shop—Peter fabricated all sorts of things for us along with inviting us to the shop to learn how to bend a 2-inch diameter steel pipe into a roll bar. He also taught the kids how to weld, and he created a *jack shaft* for us that was a work of art . . . but that's getting ahead of the time line a bit . . .);

—or the gyrations we had to go through to connect the motorcycle brake to the brake pedal we bought for the job (again, Mr. Matthiessen came through for us on that one);

—or how we depended upon the Okemos race team (they had taken second in the competition the year before and had put information about their car on-line) only to find after some fairly sizeable expenditures that the information they put on their site was not altogether accurate or complete. Example: We bought what they said they used—a model 250 charge controller (the charge controller is what regulates charge transfer between the solar cells, the four standard, lead-acid 12-volts batteries we used and the motor) only to find that the 250's current limit didn't allow it to do what needed to be done in the car. What was required, it turned out, was a model 200. We didn't realize any of this until we got the car running, things started to smoke, then after we dialed down the parameters on the 250, the motor wouldn't run for more than a second or two before turning off.

—or how one of our maintenance men, Caesar Angel, was so kind and helpful during the early part of the car's lower body fabrication. We would lay out what needed to be done with the frame and Caesar would find time to cut and weld the parts. It finally became evident that the process we were following was way too slow, so we bought everything we needed to do the work ourselves. Along with the chop saw we started out with, we bought a power grinder, a power cutting wheel, a portable bandsaw and, finally, a MIG welder. Although they were always being safe (I was the only one who managed to split a finger, and that was right at the beginning of our using these tools), by the end of the project the students were completely comfortable doing all the metal work needed on the frame.

—or the nearly comic lengths Mr. Prater and I had to go through to convince Aria (Aria was the instigator and high poohbah of the project) that we couldn't go to Texas that *first*

summer. In her defense, she had been in middle school in La Canada when La Canada High entered a solar car in the same challenge we were considering. All she remembered of the proceedings was that the La Canada people put their car together in six weeks (so why, in her mind, couldn't we?). What she wasn't taking into account was that their car was essentially build by a large contingent of parents, all of whom worked at JPL, and that wasn't us;

—or the considerable discussion about whether we should paint the chassis pink (the kids who were against it didn't come to the Saturday work gathering when we took the vote, so when they next showed up the chassis was, indeed, pink);

—or the numerous times Aria straw bossed the team to push the car up the steep hill back to our car's parking spot whenever we were returning from a test run around Poly;

—or having to pick metal shards out of Kai's Afro days after the actual grinding of some metal parts;

—or all the commotion around Ennio and Jeremy wiring the horn and turn-signals and stop-lights and caution-lights, not to mention the sound-system that was required to let us know if the secondary 12-volt battery had gotten lower than 10.5-volts (this was the battery that controlled all of those elements along with the throttle controller);

—or all the work we did in Poly's woodshop, which was a Godsend . . .

—or Julian (our resident builder of hot rods) and Aria struggling to drive a large slab of Coroplast from Home Depot back to Poly, ultimately resulting in Aria sitting out the car window holding down the plastic to the roof for the duration of the ten-minute car ride;

—or the competition between Daniel's portable fan and the team's portable fan (the team one is much cuter but significantly less effective—this was written by Aria, by the way—I would never characterize a fan as "cute")

—or the time one of our members (I don't want to use Julian's name because I don't want to get him into trouble) decided to spray paint the words "ENGINEERING CLUB" onto the side of the English building, after which we had to use mud, dish soap, paint thinner, and sandpaper to try to cover up the vandalism;

—or the time Julian and Aria showed up to Mr. Fletcher's

house asking if he had somehow managed to walk off with Julian's wallet. Upon searching, it became evident that not only had Julian lost his wallet, so had Mr. Fletcher. The whole crew went back to Poly to look. Aria found Julian's in the kitchen of Haaga House (the main administration building); Mr. Fletcher found his between the door and passenger-side seat of his car. You can't buy excitement like that . . .

—or one of our own sneaking onto campus at twelve-midnight to finish up the last-minute wiring of some of the peskier circuits;

—or the batteries shorting resulting in a mini fire and the need to use a fire extinguisher, and the after-fire use of a leaf blower taken from maintenance to clear out the dusty powder left over from the fire extinguisher;

—or Mr. Fletcher doing the first test run and, in an attempt to leverage his momentum while careening down the driveway at the south end of the south campus, tried to make the abrupt right-hand turn needed to make it up the steep parking lot entrance on the south side of the English Building, and with one front wheel higher than the other and only one back wheel, managed to tip the car over . . . as in, on its side (it was really quite exciting, though it didn't hurt anything except Mr. Fletcher's pride);

—or Susanne Whatley, the reporter from *LAist* radio, coming to interview the team about the car and the trip to Texas;

—or Keith Huyssoon, Poly's Chief Financial Officer, dealing with the insurance issue (more about that shortly).

That is all I can remember of the things that happened up to a few weeks before departure. As I said, those last few weeks before the Saturday Mr. Prater was scheduled to trailer the car to Texas saw several fairly sizable roadblocks present themselves. To give you an idea of those thrills and spills, I'm going to recount three in some detail.

[My kingdom for a trailer . . .]

We needed a trailer that could accommodate the transport of the car to Texas. Mr. Prater spent two or three very frustrating weeks trying to find a fourteen or sixteen-foot flatbed trailer for rent, to no avail. We even considered buying one, but that fell through as most of the ones for sale

were not in the area or were “build to spec” types (which we didn’t have time to do). At one point, we rented a 20’ long U-Haul box trailer and tried to come up with a way to trolly the two front tires (which were spread out from the center line) up into the truck (the back tire had no problem as those trucks come with a relatively narrow central ramp). We even tried to *dead lift* the car’s front end into the truck (you can imagine how well that went).[3]

Mr. Matthiessen finally came through with a suggestion. Call *SunBelt Rentals*. They apparently rent all sorts of heavy equipment. I called, and sure enough, they had a 14’ tilt trailer for rent (I conveniently neglected to tell them that their trailer would be traveling out of state, which I suspect would have been a deal-breaker). The only catch was that I had to go to Signal Hill down in Long Beach to get it. The other problem was we had no vehicle that could actually *pull* a trailer.

As for that second problem, we needed something that could carry equipment along with hauling the trailer. There were no vans for rent with trailer hitches, so we turned to the school. Could we use a Poly van and have a hitch installed? "Maybe" was the answer. It all depended upon what our insurance had to say. Keith Huyssoon (again, Poly’s CFO) did his magic with our insurance company and got permission, but only if no students were in the van while the trailer was attached. That meant we had a van that could transport equipment and pull a trailer laden with our car, but it couldn’t be used as transport for students (though nothing was said about alums—Aria, Julian, Kai and Jonah, all of our drivers, were seniors and would have graduated by the time of the race . . . and there we had alums).

I went to Hitch City to get a hitch attached, then the next day went down to Long Beach to get the trailer. I arrived around 11 AM. My intent was to get there early so I wouldn’t have to drive the van and trailer back to Pasadena during rush hour.

The first problem we ran into was that the ball that came with the hitch turned out to be a 2-inch ball—too small for the trailer assembly which needed a 2.37-inch ball. The yard manager suggested trying a donut

[3] After failing to make that work, I drove the truck back to U-Haul. On the way, while driving west in the far right-hand lane on California Blvd, the huge side mirror on the truck (which extended out an inordinate distance) struck the huge side mirror of a truck parked on California, destroying both. As I couldn’t stop, I had to go around the block to get back to the accident. When I got there, I found a very nice, sheepish Mexican American carpenter who was working on the building his truck was in front of (and who may well not have been documented) who handed me the remains of my mirror. I gave him my phone number so his boss could call for reimbursement for his mirror, but he never called. It was just one more thing that happened that had disaster written all over it.

hitch. He removed the connector for that kind of a hitch from one of their vehicles but couldn't attach it to the van because the square receptacle that came with the van had been recessed in from the bumper, and there was a flange on the connector that was in the way (argh!). After some thought, we tried to get around this by taking the donut connector apart, flipping it over and reassembling it. That worked, but it meant the hitch assembly was now only four-inches off the ground—way too low for safety. SHIT!

At this point, I asked if there was some place close where I could buy a bigger ball for the hitch connector I came with. They said *yes,* that Home Depot was "right down the freeway." So I got into the van, found my way to the freeway, got onto the freeway and drove to Home Depot to get a bigger ball.

When I got back, we tried it and it worked. Hallelujah brother!!!!!

We got everything hooked up, then went to plug in the electrical connections (this connects the trailer's taillights with the van's stoplights) and found that the trailer's connector was a seven pin affair, and the receptacle provided by the hitch on the van was only four pin. The two weren't compatible (of course!).

I asked if there was some place they could get a converter. The manager (after thinking some) said *yes*. He made a call, then said he could send someone to get one. By this point, it was 1:00 pm. I knew it was going to take at least another hour which meant I wasn't going to get back on the freeway before rush hour. I didn't want to do that, so I left without the trailer saying I would be back the next morning. (In fact, it was fortunate I didn't wait as the guy who was sent didn't make it back until 4:30 pm).

I did, indeed, go back the next morning. I picked up the trailer and got it back to Pasadena without incident. This was, though, typical of the kinds of starts and stops we experienced over the last three weeks. (And as a small addendum, during the race, the connector between the trailer's lights and van's lights came loose and fell off onto the road somewhere, so for that last few days of the race we had no tail-lights for the trailer—this was perfectly legal in Texas but not in California . . .).

[Get the fire extinguisher . . . again]

The second happening I will recount was the first time we ran the car for more than a minute. We traveled to Lancaster to a racetrack complex called *Willow Springs* (the *Fast and Furious* movies were shot there, as were parts of *Ford versus Ferrari*). It was just outside of Lancaster, an

hour and forty-five minutes on the freeway through Palmdale. We rented the oldest track available, a quarter mile gem that reminded me of the kind of track I used to see jalopies race on (on TV) back in the 1950's. The day was eventful.

We started with Aria taking a few laps. She went around twice at speed, then came to a stop close to where everyone was standing (rules for the track were that you didn't stand on the track—you had to stay behind the pit fence). Julian ran over to see what she wanted, then turned and shouted, "Get the fire extinguisher." The kids did, then ran over to find a very minor fire near the battery box. In nosing around, it was found that the Emergency Cut-Offs had melted. The problem, apparently, was that our contactors were supposed to have an internal circuit that allowed high current to rage momentarily, then have it restricted thereafter to only a few tenths of an amp. The contactors we bought didn't have that circuit, so Aria did two laps with 20 amps flowing through the system. It melted wires and the Cut-Offs and fried the contactors. It was a mess.

I, as always, let the kids deal with it. They figured out a way to circumvent the problem and sent Aria out on her way again. This time, though, she would go for, maybe, twenty yards, then the motor would stop and she would coast to a halt. (What was really amusing was that Jeremy would begin to run out onto the track to get to her whereupon the car would take off again—it was like a roadrunner cartoon). The car did this several time (with Jeremy trying to get to the car each time) before it got back to the pit.

The problem this time around was that the solar cells were overcharging the batteries. The total charge on the four cells was supposed to be 48 volts. Our cells were reading 57 volts. Every time the charge controller would start to charge the cells from the solar panels (it was very sunny and very hot that day), the controller would register this overcharge and, turning off, would additionally turn off the motor, then reset itself to start the process over again (thus letting the car start up again and travel for a short time before coming to a stop again).

At this point, Mr. Prater is looking at me saying, "Pull the plug. This is doomed." But the kids persevered. Jeremy hooked the charge controller up to a computer and re-programed it to accommodate the overcharging situation. We were off again.

This time, though, after going a lap, the driver (I don't remember who it was) came in and stopped saying the brakes were acting funny. Because we weren't supposed to work on the car on the track, we tried to push the car off the track but couldn't because the back tire had completely locked

up to the point that it wouldn't turn at all. I thought the motor had seized up, but upon closer inspection Julian determine that it was the back brake. Julian was our resident mechanic (he was also our best welder), took the back wheel off the car to get to the brake, and found that the brake was shredding (the Marauder had been sitting for years—it was just falling apart due to rust and non-use). He was able to whisk away most of the free shards and grind away the parts that had welded themselves onto the rim due to the extreme heat generated when the brake was engaged, and the back wheel was as good as new.

At this point, we now had a car that was not configured as it should be for Texas, but that could run. Each of the drivers (Aria, Julian, Kai and Jonah) took the car for 12 laps each (that's a total of 12 miles on the car) before we packed up and traveled home.

The moral of the story, at least for Mr. Prater and myself, was that the students were VERY determined to make this work. They were tenacious and skilled, and it was very impressive how they overcame the obstacles we ran into that day. It was, in short, a delight to witness.

[Still more travail about the solar car . . .]

The last few days have been eventful. It is Friday, and in the morning, we realized that one of the front tires was being made to hold up 30-pounds more than was/is permissible (as far as the specs on the tire are concerned—we used a balance to measure this). We had another set of tires that could hold more weight. We've swapped them out.

We also realized that the front brakes won't hold the car stationary in place when the car is pushed from the rear. This is one of the tests the car will be put through in Texas. If we don't fix this, there will be no reason to go as they won't let us race in that condition.

We haven't gotten the replacement contactors that we ordered to take the place of the ones we fried out in Lancaster yet, and Jeremy got into the car and knocked one of the toggle switches mounted on a side bar completely off, breaking it in the process. We need to get another switch (it is for the signal lights).

But the real thrill happened a few days ago when Keith Huyssoon (remember, Poly's CFO) got the paperwork from the insurance company the Solar Challenge people dug up (we paid for the insurance thinking it would do everything). What he found was that it was written to cover everything *except liability for the driver*. That's right. If there is an ac-

cident, everything will be covered EXCEPT THE DRIVER. The school will be expected to deal with any lawsuits that might come down the pike if something bad happens to one of the alums. So what we are looking at is a situation in which the *possibility* of something bad happening is very, very, very slight (the car will be sandwiched between two cars at the rear and one at the front, so it should be very well protected), but IF something happens . . . yikes![4]

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[4] Risk assessment is tricky business. No institution wants to get sued when something bad happened, and more to the point, no administrator wants to be responsible for causing their institution to be sued (this possibly being a career ender—I have sympathy for any administrator whose job requires that they be responsible for stuff like this). To enlighten teachers and administrators involved with the *outdoor education* program and the *GIP trips* program here at Poly, in January of 2024, the school sponsored a seminar on *risk assessment*.

During the seminar, the presenter told the following story: Hotchkiss School, a well-regarded Connecticut boarding school, hosted a month-long trip to China in 2007. On the trip, the students and chaperones walked to the top of Mount Panshan (this mountain is 56 miles from Beijing) with the intention of enjoying the sights, then taking the gondola back down to the bottom. They got to the top. When they were ready to leave, three students asked if they could walk back down. The chaperones said they could but that they needed to stay on the path. The students ignored the restriction, taking a dirt path halfway down. While on that path, one kid was bitten by a tick that was carrying encephalitis. As a consequence, she almost died but didn't. She did come out of the experience partially paralyzed, had cognitive-function loss and a loss of her ability to speak. The parents, naturally, sued claiming the school should have known that encephalitis was in the area (even though there had not been a single tick-related transmission of the disease in the area ever) and should have required the students to apply insect repellent. The parents won the suit. The school was made to pay out $45,000,000 in restitution.

The facilitator's takeaway from this story was interesting, listing three areas of risk an institution like Poly has to be careful with. He said (paraphrasing): Be very careful with medical risk (what are the possible medical implications of what you are about to do); be very careful with safety risk (what are the safety concerns with your proposed actions); be very careful with liability risk (are you doing something you could be sued for). He additionally said that chaperones should document EVERYTHING during a trip so that if something happened, the school's lawyers would have a meticulously kept set of records of the decisions made and actions taken. The bottom line was that if you are going to get sued, at least make it look like you've been conscientious (I might add, Poly has an excellent Risk Assessment Committee with lawyers and doctors that regularly review our trips and make recommendations as to how to make them safer).

His takeaway and my takeaway were nowhere close to one another. It is never OK to act irresponsibly, so being mindful of what I'm doing as a chaperone is a must (I would never have let those kids in the Hotchkiss incident go down that hill by themselves, for instance). That said, if it is right for karma to visit upon me and the school a catastrophe, it is going to do it no matter what (who'd have thought that someone would contract encephalitis from a tick bite in a region where *that had never happened before*?). If disaster does happen, know that an aggressive lawyer is going to find that *one tiny thing* you didn't do right, and he/she is going to skewer you and the school with it. In the Hotchkiss case, it was that the chaperones didn't tell the kids to put bug repellent on. It isn't going to matter if the accident was the consequence of the kid doing something he or she was told not to do (the Hotchkiss girl was told to stay on the path, which she didn't do). No matter. With the myriad of things the Hotchkiss chaperones needed to keep their thumbs on, the one thing they forgot about or just didn't think to do was to tell the kids to put bug repellent on, so God damn them. If the school had asked chaperones to document their brains out, they should have. But between you and me, it wasn't going to mattered how well they execute that task because a jury, seeing the damaged kid (in the Hotchkiss case, the girl sat in the courtroom drooling because

I can't speak for Keith's reasoning, but to his credit he bit the bullet and let us go (it might have helped that by the time the decision had to be made, the school had had tons of publicity to the effect that we *were* going—remember that LAist interview?—and not going would have been an embarrassment . . . though I'd prefer to think that he was just as excited about the project as we were, and that's why he let it happen).

There was more, but you get the idea. It is a wonder we made it to Texas (which we did), or that we covered 200 miles before 18 of the 35 judges and officials of the Solar Car Challenge came down with COVID halfway through the race and the race was stopped as a consequence (we had a different judge in one of our chase cars every day during the race, and all of them were ultimately found to have COVID), or that when the totals were tabulated, we got SECOND PLACE in our division. Very fun.[5]

To finish this off, I'm including a bunch of photos from the building of the car to the trip. I'll put a brief description of each photo by its side.

1.) Here we have a group of students busy sanding the beginnings of the frame so we can paint it. The only student I'm sure about (it's been a while) is Kai. He's

she had lost control of her facial muscles) is going to find for the plaintive no matter what.

So how should one deal with risk assessment? I think the Brothers summarized it nicely. There are *possibilities* and there are *probabilities*. For the solar car experience, we were going to have alums drive a car at 25 mph on a highway where other cars were going 70 mph, so let's face it, there was a possibility that something bad might happen. But given all the safety protocols in place (being sandwiched between two cars also going 25 mph that have huge signs saying CAUTION—SLOW MOVING SOLAR CAR AHEAD prominently displayed on the cars), the *probability* that something bad might happen was nil. IF something bad happened, it would have been very, very bad, and the school would surely have been sued, but the chances of something bad happening were zip.

Possibilities and probabilities coupled with the understanding that karma happens, that is my guiding light for risk assessment. That, and not doing anything stupid.

[5] And one more bit of amusement: Jill, one of the chaperones, came down with COVID on the second day there, so Aria's parents had to take over for her. If they hadn't been there, we'd have been without a third driver and that would have been that.

the kid in the orange with the big hair (he was also one of our drivers—getting that hair into a helmet was a chuckle).

2.) The photo to the right is of a small group of students standing next to the frame with both the front assembly and back wheel attached. From the left, there is Julian (he was our hot rod expert and general all-around mechanic), Kai (light blue shirt) who was one of the three or four stalwart seniors. Aikam (a freshman who did a lot of work on the car); Aria, the head honcho and Ennio (he was a go-getting sophomore who was very much devoted to the electronics of the car). Julian, Kai and Aria were drivers when we finally made it to Dallas.

3.) The shot above is of our workspace on the south side of the English building. Julian is to the left with welder in tow; Aria is to the right using the electric chop saw and Daniel is scrunched under the solar panels doing something to the front of the car. By the time we were done with the project, just about everyone was perfectly comfortable wielding a portable bandsaw or grinder or drill.

4.) Everyone was good with getting dirty. Here is Aria working on something underneath the floorboard with Julian grinning to the side.

5.) The first photo is of Aria giving a thumbs-up while standing next to the partially built car. At this point the car had its front suspension (the two rather petite looking wheels you can see—they came from a Surrey Quadricycle assembly), steering wheel (without seat), roll bar without battery box to its rear, the back wheel (it was scavenged from a Mitsubishi Marauder motorcycle) and solar panels on top.

6.) Peter Matthiessen is a Poly alum who owns a construction company. What you are looking at is his workshop, a veritable wonderland if you are into heavy equipment. What's happening in the picture is Peter showing Julian, Daniel and Jonah (Jonah was our fourth driver) how to bend steel tubing to make a roll bar. Very cool! (Peter also taught several of the kids how to Mig weld.)

7.) This is a shot of the cockpit. The seat is in the middle surrounded by the roll bar with the battery box (it's white) showing behind the seat. You can also see the windshield (it was plastic) and the top of Kai's head in the back.

8.) The caravan consisted of a lead car, which I drove and which towed the tilt trailer we used to trailer the solar car, the solar car itself, the first "chase" car up snug behind the solar car and on which resided a sign that read, "CAUTION: SOLAR CAR AHEAD," and a second chase car that was, maybe, a quarter of a mile behind the first chase car (it also had a sign on it). All in all, it was relatively safe, given we were driving 25 mph on a roadway in which all the other cars were going 65 to 70 mph.

9.) It was raining when we finally passing over the starting line, but in fairly short order things calmed down. We used the tilt trailer shown in the photo whenever we needed to trailer the solar car. Tilt trailers are quite remarkable. They actually tilt down at the rear so you can drive or push the car right up onto it. Very cool!

10.) This is a nice shot showing the car's badging. Julian is driving.

11.) This is Kai sitting at the start line on Day 2 (I think).

12 and 13.) These last two are kind of wild. The first few days of the race were spent in Texas. I was surprised at how friendly and helpful the folks were. I was also surprised at how much they love football. We rolled into a tiny, tiny town in western Texas and found a huge football stadium (apparently called RAM STADIUM, given the photo). I mean, the stadium was ENORMOUS! We rolled into the next tiny town and there was another monstrous stadium (the last photo shows the understructure to get a feel for how big these behemoths

were). Just wild! (And for the record, the folks in the car photo at the top of the previous page were, from left to right, Jonah, William, Daniel, Reese, Jeremy, Aikam, Aria and Julian.)

The whole experience was very, very, very, very, very fun . . . and as a cool addendum, Aria, Julian, Kai, and Jonah, our 2023 drivers, all graduated that year. Two years later in 2025, Jeremy, Will, Daniel, Aikam, the two Max's, Chloe and Enio also graduated, but not before building (with a few underclassmen) another solar car that they raced in that year's Solar Car Challenge, this time on the track of the Texas Motor Speedway in Fort Worth, Texas (our starting point for the previous cross-country adventure). I didn't act as primary advisor that time around (a friend of Jeremy's family, Deniz, took over that task, and Dom R took over the logistics job Jack had during our stint), but I did go to Texas as a chaperone.[6] It was a wild time, complete with being made to completely rebuild the interior of the car's crash zone during Scrutineering (it was nothing more than a wire in the original design, which the judges negged on the spot), and having the left brake grabbing out of synch with the right brake during a panic stop that sending the car into the wall moving at 48 mph (the kids took three or four hours to fix it and were back on the track the next day, earning a track record for number of laps traveled). Due to all the problems, they got second place, just like last time, but that was OK.

In the car photo, from left to right, is Jeremy, Arjun (Aikam's

[6] The other chaperones were Sean (head of HR at Poly) and Samantha (college councilor), both delightful people. Also, Kevin was there. Kevin, a friend from Jack's childhood, helped Jack get the car to Texas in 2023 (he drove the car back this time around). Kevin was (and is) a very energetic, smart, creative guy with a great sense of humor. . . . a very fun guy to be around. He is also a bit of a foodie. He took Sean and me to an amazing Mexican restaurant called *Joe T Garcia's*. I had never been to a place like it. It had an acre of space full of plants and trees and waterfalls and colonnades and cubbyholes, and could seat over 1000 people at a time. It served only two dishes and only took cash. It was a trip. Also, on the last day, Kevin took the kids to *Pappadeaux Seafood Kitchen* and ordered everything imaginable (clams, catfish, allegator) cooked every way possible. The kids loved it. He was/is a great guy.

younger brother) and Aikam, with either Max I or Will in the cockpit. The second photo is of the cockpit area with the upper body hinged into up-position.

_____x_____

[The Eaton Canyon fire, and *wind elementals*.]

This has several pieces to it and is slightly complicated. Hang in there and stay with me. It's interesting.

The Kali Yuga is a time of stress. It's that way to force people into making choices that will determine whether they are completely in-turned and interested solely in themselves or are able to look beyond their own self-interest. This doesn't mean there aren't very fine Beings in incarnation right now. There will always be some here to help, even if they don't know that's why there are here. It just means that everyone in a body is going to encounter travail above and beyond the norm.

When I first learned about *climate change*, I was somewhat skeptical about its impact on the selfishly rich. I figured they would always have money to buy themselves out of whatever problems that might arise. I was, in other words, way underestimating karma's ability to make things happen.

The first example in recent history of "making things happen" was COVID. This was not a climate change thing, but it certainly did discommode everyone, rich and poor alike. It didn't matter who you were. If you got it, you could die.

Another occurrence that jumped out at me was the war in Gaza. You could be an affluent Palestinian or a party-hardy Jew and your world could change in a moment.

The most recent calamity has had to do with wildfires. There are several going on right now in the Los Angeles area (I'm writing this at the beginning of January, 2025). I'll be talking about two of them.

The first started in Pacific Palisades, a coastal city situated on cliff-like bluffs that are bordered by the Pacific ocean, Brentwood, Santa Monica and Malibu. It is affluent with an average home value of $3.4 million (according to Google), with residents including Tom Hanks, Ben Affleck, Jennifer Aniston, Bradley Cooper, Reese Witherspoon, Adam Sandler and Michael Keaton. There are also thousands of long-time residents who aren't rich but whose families have lived in the area for generations. The

fire is still going as I write this, but at this point it has consumed over 1000 homes (this including Tom Hanks's, Kamala Harris's and Steven Spielberg's) with 17,000 acres burned (two days later it was 23,000 acres and the fire was threatening to cross the 405 freeway and enter Brentwood, an area with some of the most expensive homes in the world).

In the Pasadena/Altadena area where I live, Eaton Canyon is a lovely nature and wildlife preserve, complete with streambed and, farther up the canyon, a waterfall. Relative to where I live, it is in the foothills about two miles directly north up Altadena Drive (Santa Anita, which turns into Altadena Drive, is literally one block over from my street—it goes north/south until just above Eaton Canyon, then goes east/west into a very expensive area complete with the *Altadena Town and Country Club* where I sometimes go to see fireworks around the 4th of July). Because the fire in my area started near Eaton Canyon, it is being called *the Eaton Canyon fire*.

The Eaton Canyon fire began two days ago. Not more than twenty-minutes after it started, I could see the flames from my backyard (and front yard, and roof). We have fires in California all the time. Whenever I hear of one, I always feel for the people displaced and the wild animals that are caught in the inferno. What made this particularly fire stand out, aside from the fact that it was right at my back door, was the 60 to 80 mph winds, complete with 100 mph gusts, that were happening at the time. This wind-event is what made our fire and the Palisades fire so devastating. Neither could be fought with water-drops from planes and helicopters, and community fire hydrant systems just weren't up to fighting hundreds of home-fires simultaneously.

My neighborhood is nice but not elite like the Palisades. My home is now worth somewhere around $1.4 million, but that explosion of value has only happened recently due to the housing shortage. The structure (as you saw in Volume 1) is one-story, 2400 square feet. When I bought it in 1998, I paid around $300,000 (this, if you will remember from Volume 1, was only possible because Kay left me $50,000 in her will and Cathy, who inherited the house when Kay died, gave me a $50,000, no-interest loan so I could make ends meet). Although there are some palatial homes in Pasadena, Altadena and La Canada, most are modest like mine.

My power went out the first night only. Watching the news reporting on the fires was surprisingly emotional. I thought about what it would be like to have my own home burn to the ground, which it easily could have done that first night if the winds had pushed the fire southward. This would

have been a major dislocation in my life, having my house destroyed. Where would I go if something like that happens? Where would I live? What would I take with me in fleeing (aside from the obvious like the cat and the lamp and the computer), knowing that whatever I left would most certainly be consumed by the blaze? If you will remember, I pointed out in the first volume that part of my task in life has been to have little peeks into the lives of others without having to fully live those lives? This was another of those situations. So many people have experienced this kind of thing over the last several years, given all the fires we have been having in California, and now it was happening right under my nose.

Poly's administration and the parent organization have pulled together relief for those affected by the fire. Ten faculty members lost their homes with significant damage happening to the homes of eight others. Lord only knows how many Poly students are now homeless. Outside of Poly's community, the losses have been staggering.[7]

There were a couple of off-the-wall things I should mention that caught my attention during the catastrophe. As is often the case, both will require preamble.

First, over the last year, I have been doing a short meditation before getting out of bed in the morning. In that meditation, among other things, I have pointedly acknowledged the Consciousnesses that animate the devic kingdom and the elemental kingdom (devas are associated with plants and trees, and I talked about elementals in Chapter 51). As good meditations do, this has to some degree leaked into my everyday life (not as much as I'd like, but some).

How so? It's fall. We have deciduous trees in the neighborhood, all of which are currently adorned with beautifully colored leaves, ready to drop. They aren't widespread like they are in the east, but they are nevertheless here and they are beautiful.

I have in the past, while on walks, mentally acknowledged the devas of those trees, giving them a blessing and projecting as kindly and gratitude-filled a thought as I could toward them. A few weeks ago while on my walk, though, there was an extra dynamic. The wind had kicked up, helping the trees shed those leaves (see photo on the next page).

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[7] Examples: Loyola High School in Los Angeles had seventy-three families lose their homes in the Palisades fire, and the wife of one of my colleagues worked at a small, private, elementary school in Altadena that had 120 of its 200 enrolled families lose their home. (It's the end of the ordeal, and it is estimated that 12,000 structures were burned.)

I do marvel at how interesting it is that winds come at just the right time of year to help out with that task, but that wasn't where I went during that walk. As the trees swayed in the breeze, I began thinking about the interaction between the *air elementals* animating the wind and the *devic consciousnesses* that animate the trees. I couldn't *feel* that interaction because I'm not all that sensitive. I had a suspicion it was happening, though, so I reverted to old form and extended a blessing to all involved.

Why am I talking about this? At one point during the Eaton Canyon fires, right at the beginning during that huge wind-event with the fire directly north of me (and not far away), I went up onto my roof to put a hose in place. I thought I might have to wet my roof down if embers got blown in my direction, and I wanted the hose to be easily accessible. I had just previously been down on the street where I mentally registered the presence of the air elements animating the wind, and where I projected a thought of acceptance toward them for the doing of their duty.

This was NOT me trying to influence them. I wasn't asking them to go away or lessen any impact they might have on my neighborhood. It was more of an acknowledgment that they had a task to complete that was karmically correct, and that I was giving them greeting and a nod to that necessity.[8]

After I got done on the roof, I went inside and laid down on my bed (my cat lay down next to me—she was not amused by all the banging and whooshing that was going on outside). I was fully aware that the wind could seriously damage my home, not to mention the ease with which it could have directed the fire my way. But as it buffeted my house, I closed my eyes and again gave the wind elementals another greeting, mentally reiterated my support for their doing what they needed to do. It was as though I was talking to an old friend, telling them that whatever they had to do, I was OK with it, that I understood and supported it.

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[8] As a side note, while I was on the roof, the wind began to ramp up culminating in one of those 100 mph gusts. The power presented was beyond impressive; I again projected a mental acknowledgement, this time to that effect.

Just as I concluded those thoughts, the wind died and everything went silent. I waited for it to pick back up, but it never did. The wind just stopped. It has been three days since that happened. There has been no wind in our area since.

There are stories in India about holy men who have been approached by dangerous animals that did not attack even though they were animals known to regularly kill humans. These individuals have been, I suspect, very high chelas who have so snuffed out a willingness within themselves to be harmful in their interaction with others, nature has no longer felt the necessity to bring harm to them. This is VERY RARE, and as I said in the E.Phil. book, not something you should try after ten minutes of *being good*. Karma doesn't play around when it comes to things like this. What's more, *this is not me*! I am not one of those special Beings.

In other words, the odds that the wind did what it did because of my feeble, mental reaching out to the wind elementals is, like, zero. I'm just not that advanced in a spiritual sense.

Put a little differently, the wind dying when it did (like, right after my little blessing) HAD to be coincidental . . . except now I am not so sure. Why? Because when I told Cathy about it, halfway through the telling I had to stop talking because I became completely overwhelmed with emotional. I even teared up. Something was going on underneath the surface that wasn't evident until I tried to talk about it.

In short, I think this may have been one of those gifties I've been given over the years that lets me see there is more to this place than meets the eye (remember the experience I had after coming back from Sienna, Italy). And if that be the case, as bashful as I am feeling about this, it is a giftie I feel I should include in this book, which is exactly what I'm doing.

The second bit of amusement has to do with me as a person. Even though fires are still going in other parts of L.A. County, I spent Monday of this week at Poly getting ready for our students to come back to school on Tuesday. The school wisely knew many people, both teachers and students, would be traumatized, so considerable time on Monday was collectively spent with Andrea Fleetham, one of the school's councilor/psychologists. She talked about how to deal with catastrophic events like this (and she did a superb job of it).

What was interesting was that just before she made her presentation, I realized how ill-prepared I was to talk to anyone about any of this. This was a little bit surprising, but it had its roots, oddly, in my time with the

Brothers.

I think I've made this clear, but whenever I run into a situation that has required me to talk about "this place" or life in general, I have always felt compelled to preface my points with, "my view of the world is not normal, and it's probably quite different from yours." It's not a boast and it's not me trying to be mysterious. It's me trying to cover my ass should I say something that would make perfect sense to a chela, but possibly not so much to someone else.

The point is, I have a very well-defined idea of what the world is about, informed by what I've learned from the Brothers. It's kind of a privileged view of the world in the sense that the things that worry people in general don't so much worry me (like death, for instance). Sure, if I lost my home in the fire, I'd have been seriously discommoded and it would have been a huge pain to navigate, but I probably would have come out the other side seeing more clearly how little I need to comfortably exist (for instance).

Think about it. We have all this stuff around us, stuff we've accumulated to make our lives easier and happier and in some cases, make us feel worthwhile, but how much of it do we *really* need? An experience like this has all the earmarks of karma trying to let us see that the answer to that is *very little*. On top of that, losing my house would have given people around me the opportunity to act nobly, to come to my aid (which many would have done and many *are* doing for others right now).

Even though all of this would be true, would they be things I'd point out to someone who just lost their home? Surely not. So how *do* I talk to someone who has just become homeless? What do I say?

That was where Andrea's guidance came in. She suggested that those on the periphery of a disaster should not try to fix everything in sight but, rather, should start out by listening to the victims. The victims will tell you what they need, even if all it entails is the telling of their story. And having listen, you can then go from there.

That I can do, and I am grateful there are people like Andrea who have thought about problems like this and have good advice to give.

There is one more aspect to all of this, though, that dropped on me this morning just before I rode in to school. I knew I was going to aurically "rub elbows" with people who could be seriously disturbed, and I knew I needed to protect myself. To that end, when I ended my little meditation that morning, I sang through that tonal progression I talked about in Volume 1. When done, I focused on my auric complex, sealing it off with a strong shield. I then filled the auric complex with golden light . . . at which

time it hit me.

In Volume 1, I told the story about a beggar, a chela, who spent most of his life on the back streets of Benares. As he sat with his begging bowl, his discipline was to so radiate the light of unconditional love that when people would pass him by, whether they gave him a little something or not, within fifty feet they would begin to feel better. They wouldn't know where it came from, but it would be as though they'd had their emotional and psychological load lightened some.

As grateful as I was to Andrea for coming up with common sense ways to deal with our situation, *that* is what I should be doing, radiating a tone of such complete lovingness that anyone I might come across would have their load lighten. It wasn't psychology 101, but it is how I think a chela would have dealt with things.

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[Teacher Appreciation Award . . .]

I've had an interesting problem of late. I really want people to have the chance to read the autobiography, but I've said I don't want Poly people to have access to it until I've died. The reasons for this, obviously, is that I haven't wanted anyone at Poly to know about my connection with the Brothers. In that vein, dying would seem like a really good idea, because once I'm gone, no harm, no foul.

The difficulty with dying is that a chela uses his (or her) vehicle for as long as he/she possibly can. Nature goes to an enormous amount of effort to provide bodies for all of us. Not using our vehicle to the best of our ability and for as long as possible is just wasteful, not to mention downright disrespectful. So how might I deal with this? Karma, as usual, may have provided me with an answer.

In a very kind gesture, the class of 2023 gave me my second *Teacher Appreciation Award* (the first one happened the fourth year the award was given back in 1998). Both Richard White and Jack Prater were recipients of the award in years past. When they congratulated me, the first thing each of them said was that getting the award meant I was going to have to give a speech at the Senior Dinner that would happen at the end of the following year.

For that speech, part of me wanted to talk about how strangely bizarre and wonderful the physical world is from a physics perspective, maybe

even closing with the *parting shot* I used to give my students at the end of each year (this being about the Great Pyramid, which has nothing to do with physics but is a wonder nevertheless). The other alternative was to address the stress and chaos people are experiencing just living in the world today by talking about *perspective*. If I did the latter, what I'd say might just give me a legitimate opening to allow a select few to read the autobiography before I die.

To get a feel for why I think that, I've written out that speech below. (And for the record, I decide shortly after writing this speech that it was way too *out there* to foist on the kids just before graduation. Jack liked it, Victoria didn't, Harvey liked it but Andrea thought it had too many trigger topics. Bottom line: it would have been interesting, but probably would have put way too many people on their ear. Still, I wrote it, so you might as well read it.

The following was written in December of 2024.

> Thank you for having me. I have a lot to say, so I'll jump right in.
>
> Your *perspective* has everything to do with how you understand your world.
>
> I went to San Marino High School back in the dark ages. Toward the end of my senior year, I heard one of my friends, a really bright guy, say there were 270^{o} in a right-triangle. This was very confusing. My Trig teacher, who was someone I trusted, had said there are 180^{o} in a right-triangle. What I didn't realize was that the *perspective* I had been taught and had bought into was Euclidian, a geometry that focuses on *flat surfaces*. Sum the angles of a right-triangle drawn on a sphere and you don't get 180^{o}, you get 270^{o}.
>
> Your *perspective* has everything to do with how you understand your world. If it's a good reflection of the *reality of this place*, you won't find situations that seem just wrong. But if you run into things that don't seem to fit well, there is a chance your perspective isn't as dead-on as you think.
>
> This was *not* the kind of thing I thought about much when I was a kid. When I was your age, I went to Arizo-

na State University, a place that at the time was known for being a party school. I lived in a fraternity house the entire time I was there; I studied electrical engineering. I was relatively normal. Then, right at the end of my college experience, some things happened that made no sense to me, given my typically western perspective.

Fortunate, around that time I came into contact with people who were very well educated, and who knew a lot about the *understructure* of the eastern philosophies. I learned from them, and what I found, among other things, was that *eastern metaphysics* could be quite fascinating on all sorts of levels.

Shifting gears some, I arrived at Poly in 1978 to teach physics to seniors. Ten years earlier, the Beatles had gone to India to meet with a guru named Maharishi Mahesh Yogi. They left him after he made a pass at one of the women in their entourage, suggesting he wasn't the spiritual teacher he purported to be. Nevertheless, this was a time when there was an enormous explosion of interest in the eastern philosophies on college campuses.

When I got to Poly, I was completely unprepared for what I found. Yes, the seniors I dealt with were smart and motivated, but they were also genuinely nice human beings. I knew they would be going to college that next year, and I knew they would find themselves in the middle of that explosion, and because I knew that some of the meditative practices that were being pushed on campuses at the time were dangerous, I was worried about their safety. I knew they would arrive with absolutely no background in eastern thought, and I didn't want to see them harmed.

My solution was to take an hour a week, every week, to sit down with whichever seniors were interested, and talk about some aspect of the eastern philosophies and their metaphysical underpinnings. I tried to build for them a framework from which they could view and understand those philosophies, and life. I wasn't trying to convince them that a particular view was better than any other. I was just providing information. I talked about meditation. I talked about gurus, both the reputable ones and not-so-repu-

table ones. I talk about *avatars*, which is the Sanskrit word for world teachers. I talked about the animal kingdom and our younger brothers, and about the plant kingdom and the devic world. I talked about death. I talked about the after-death states and *devachan*, which is the Sanskrit word for *heaven states*. I talked about thoughtforms and *the inner worlds*. I talked about what a human being is, and why we are here. I talk about why the religions of the world seem to be so different, given that each claims to reflect the reality of this place. I talk about the principle of *once human, always human*, and about reincarnation and karma *in that light*. I talked about human relationships.

In short, I talked about everything imaginable, all from an eastern perspective. I did this for twenty-five years. Each year, around half the senior class would participate. That means that when I ended the run, somewhere around a thousand Poly alums had participated in the activity.

I obviously didn't offer this to you. Why? Because there was no need. Interest in the eastern philosophies has been waning on college campuses for years. That original problem that motivated me in the first place is no more.

So here we are, and you are about to leave the Poly bubble. I hope you find your university next year to be a delight. I hope you get along with your roommates. I hope you have fun. I hope you learn a little something so you can get a good job when you graduate, and as a consequence hopefully make enough money to live comfortably. I hope you have good friends. I hope your health holds out. I hope you find love. And if you want a family, I hope it's a wonderful family with children who are genuinely nice people. In short, I hope the best for you.

But . . .

If you are at all observant as you move out into the world, you are going to notice that we live in a time of turmoil. We have politicians who thrive on chaos. We have democracies being turned into autocracies. Global warming is no joke, and it isn't going away. These are things that are going to affect your life no matter how affluent you become.

And how you deal with them will be intimately related to your perspective . . . which brings us *back* to perspective.

What I'm about to do for you in the next few minutes is to present what could best be described as a *different* perspective on life, one that is more closely aligned with all that stuff I used to talk to my seniors about in that eastern philosophy activity. Please understand, this is not *my little fantasy*. It is rooted in traditions that are older than the oldest of today's religions. If you find yourself resonating with the ideas, great. It will give you something to think about. If you don't resonate with them, don't let it throw you. This isn't me trying to make you feel uncomfortable. In short, even if you don't agree with what I'm saying, I think it's something you should at least be aware of. So here goes.

The first precept of this perspective is *you are not your body*. You certainly *identify* with your body as you move through life, but that's not what you are. You are a Consciousness, a Being, an Awareness. Part of the appeal of this is that it suggests you are in active, *constant contact* with what you are.

Everyone, close your eyes . . . Notice that you are aware your eyes are closed. That point of awareness, your ability to be aware, that is what you are.

Modern science will tell you this is ridiculous, you need a body and a brain to be aware, and when the body dies and the brain ceases to function, your awareness is no more. This view doesn't agree with that. As far as this view is concerned, when your body dies and your brain ceases to function, you will *not cease to exist*.

Where will you be? This brings me to my first quote.

There was a 17th century mystic named Jacob Boehme who was asked, "Where does *the self* go when the body dies?" His response? "There is no necessity for it to *go* anywhere."

How could this be?

Think about it. You are sitting in physics class. The teacher is rhapsodizing about the wonders of Newton's Second Law. You aren't hearing a word she is saying because

you're thinking about that hot date you'll be having next Saturday night.

Where are you? Your *body* is in physics class, but *you* aren't there. You aren't hearing a word the teacher is saying. You have gone *inward*. You have enveloped yourself *in thought*. You have moved into what the east calls *the inner worlds*, a place where thought lives. And because you are constantly thinking, this is a place you are in constant contact with. So when the body dies and you pull your focus away from the physical form, refocusing your attention completely into the inner worlds, you haven't gone anywhere you haven't always been. And thank you, Jacob Boehme.

Perspective! It very much shapes how you understand your world.

Let's say you are willing to go along with this idea about self, and let's say you as a Consciousness are not in a body but, rather, are in the inner worlds. I don't have the time to talk about what you're doing there or how the inner worlds are structured, but you are there. Let's additionally say it is time for you to be drawn back into a body to once again attempt to learn how to deal with *existence in matter*. The mechanism that is designed to allow a Consciousness to move into a physical form is animated, and you move into a body. The body is born, and let's say it's the body of a male. Let's also say your parents decide to name you "little Johnny."

Little Johnny spends a pleasant life as a male. He animates all the thoughtforms that are typical associated with being a male, and sooner or later it comes time to die. What happens?

This brings me to my second quote.

You all know who the Greek philosopher Plato was. He lived around 400 BC. I had a professor in college who told me that Plato WAS western philosophy and everything that came later was a mere afterthought. Plato was, in other words, kind of a big deal.

There was another Greek philosopher named Heraclitus, though, who lived earlier, around 500 BC. He was the

guy who wrote, “You can’t step into the same river twice,” which was a very clever way of saying that change is constantly happening. Almost none of his writings have survived, but we know about him primarily from what later Greeks had to say about him. They placed him right alongside Plato.

Anyway, Heraclitus was approached one day by one of his students and asked, “What is the difference between life and death.” Heraclitus said, “There is no difference.” The student said, “Then why don’t you kill yourself.” To which Heraclitus replied, “Because there is no difference.”

Again, how could this be?

Back to little Johnny. The body dies. What happens? He pulls his focus away from the body and into the inner worlds. He is no longer sporting a physical form, but he has a body of sorts that is appropriate for the inner worlds, and he's still carrying all those thoughtforms he had interwoven into himself during life. He still sees himself as a male. If he had addictions, they will still be with him. There will, in other words, be very little difference between *little Johnny in body* and *little Johnny on the other side* . . . and thank *you* Heraclitus.

I might add, as a side observation, this is part of the reason why committing suicide is such a bad idea, aside from all the pain and suffering it causes loved ones. People who commit suicide are usually trying to get away from something. They aren’t happy with where they are in life, and they just want to flee. If this view is an accurate reflection of the reality of this place, when you step across the line in a situation like that, you don’t get away from anything. You are still you, and all the thoughtforms and stresses that motivated you to take your life will still be with you. What's more, because you have interrupted the natural flow of your life-experience, you will find yourself frozen in that state, encapsulated until your body would have naturally died. Suicide is not a mortal sin, but that doesn’t mean it isn’t a really, really, really bad idea.

I've included this observation because I don't want people, especially young people like yourselves, to think

that *the other side* is wonderful, so why stay in a body if life doesn't seem to be treating you well. You have a reason for being here. I again don't have time to talk about what that is, but it exists. Nature has gone to an enormous amount of effort to provide you with a vehicle. Trashing that vehicle because you aren't happy is spectacularly disrespectful in a cosmic sense, and as I said, it isn't going to take you where you think you want to go.

Anyway, back to Little Johnny. When he dies, his *body* will begin to decay, which is what bodies do. The energy complex around him, his aura, which is associated with all those superficial thoughtforms he has interwoven into himself during his life, they will begin to decay, also, but more slowly. So whereas it only takes a physical body a few years to dissolve away, these energy patterns will take *hundreds* of years to completely dissipate. And when that's complete, the Being that was Little Johnny will be ready to move into another body in a situation that is karmically correct, given the spiritual state of the Being, and once again have the opportunity to experience in matter.

But let's say that Being isn't given a few hundred years to execute this disassociation from thoughtforms. Let's say the Being's karma draws it back into a body after, maybe, thirty or forty years, way too little time for those thoughtforms to slough away. And let's also say the body the Being is drawn into is that of a female, little Jane. What then?

What you end up with is a very confused little girl. She will clearly be in a female form, but all those male thoughtforms will still be swirling around her. She will feel, in other words, like she's in the wrong *kind* of body.

For those of you who are wondering why someone might be drawn into a situation like this, as natural as it is, there are as many reasons as there are individual. One prominent one, though, is that it's time for humans to begin to realize that they are not their body, and although there are many ways this might happen, a pretty powerful way would be to find yourself in a body that just didn't match who you thought you were.

Again, perspective. It has everything to do with how you understand your world.

And by the way, I know this is a delicate subject, especially given that we most probably have trans-folks in the audience. I've included it here because I want you to know that there are perspectives, *this* one at a minimum, in which the existence of trans people is believed to be a perfectly natural occurrence.

There is one more piece I need to talk about.

I'm simplifying, but there is a method to the madness as you live life. The karmic law, the *Teaching* law, in conjunction with the highest in you, draws you into experience. Experience demands you exercise your *freedom of will* to make choices. Choices produce consequences which generates more experience which requires more choices. The Buddhists refer to this as "the wheel." This is how you learn to *deal* with *existence in matter*.

There are Beings who have, over many lifetimes, made consistently good choices. They have built into themselves qualities that are lasting: qualities like lovingness and compassion and benevolent thoughtfulness. They will most certainly move into the upward swing of this spiritual evolution. I see no reason to believe that you are not among them.

On the other hand, there are Beings who have, over many lifetimes, made consistently bad choices, building into themselves the heaviness of self-preferment. At some point, they will be given one last lifetime to try to turn things around. If they succeed, they will be allowed to move into the upward swing. If they fail, they will be drawn into a deep sleep where they will have to stay until the universe provides them with another sweep of evolution from which they might start over. This is not a punishment. It is just a natural consequence of the way this place works.

The Sanskrit phrase given to the age in which all of this happens is *Kali Yuga*. It translates as "the age of iron." It is a time that spans thousands of years.

During the Kali Yuga, the *powers of light* and the *powers of darkness* are exactly balanced because it is absolutely necessary that people, when they make choices, be able to see where their choices will take them. During the Kali Yuga, great institutions will fall. Institutions provide guard-

rails for people, often removing the necessity for individuals to make decisions completely on their own. It is important that people begin to learn to make decisions on their own.

As disconcerting as this is going to sound, according to this tradition, you and I are living in the Kali Yuga. This is not a bad time. It is simply a time of choice. There are many benevolent souls in bodies right now, trying to make life as good for others as possible. But there are also many, many Beings coming in who are right on the edge, and when they fail, if they fail, they will create considerable chaos and havoc in their wake.

On top of that, one of the responsibilities of nature is to reflect back at humanity the state of humanity. When you tear up the emotional and psychological landscape of those around you, you ever-so-slightly feed the thought-forms that animate hurricanes and tornadoes in nature. When you project irrational anger toward others, you ever-so-slightly feed the thought-forms that animate firestorms. When you withhold the nurturing quality of lovingness, you ever-so-slightly feed the thought-forms that animate drought. None of this is damning. We are human, after all. But climate change is the earth doing its duty, reflecting the cumulative state of Beings who are coming into embodiment during the Kali Yuga.

Perspective: it has everything to do with how you understand your world.

So why am I talking about all of this?

Knowledge is power. Nobody can tell you for certain what is going to happen to you when, for instance, you die—that is why *faith* is so important in people's lives. This perspective, which most of you have probably never run into at a gut level, shines a very different light on what is happening in the world today. That is not a bad thing for you to be aware of.

Having said that, there *is* one thing for certain. During your lifetime, a significant portion of the world is going to be metaphorically *on fire*. So how do you deal with that? Here are my suggestions.

There will be *islands of sanity* in the world during this time. Find one and join it. Be grateful for its presence. Actively work to support it.

The only person you will ever have complete control over in an inner sense is yourself. You are the center of your world. Understand that this is true of everyone.

Beyond yourself, you will have a *sphere of influence*. Treat all within that sphere well. Be kind. Be thoughtful. Be helpful. Resist the urge to act solely in self-interest.

If you see bad things happening in the world around you, move to make them better if you can. If you can't, or if you try and others make choices you don't agree with, don't become debilitated over your inability to make things happen as you think they should. Accept that this is a time of choice *for everyone*. As a Christian friend of mine used to say, "Do the best you can, then leave the rest to God."

As little time as I have to explain why this is reasonable, understand that if bad things happen to you or your family, it is not necessarily a sign that you are bad people or have done something bad in the past. The karmic law is not a *punishing law*. The karmic law is a *teaching law*.

Be mindful of where you place your foot. Be thoughtful toward your younger brothers in the animal kingdom. There is no death, though that should make you *no less mindful* of how you deal with life. Wherever you go, leave it better for your presence. Be kind when you don't have to be.

There is a blessing I have always liked. It goes: *Be grateful for the things you have, for your body and mind and its power to think and to choose. Be grateful for the smallest of things that serve you both animate and inanimate, for the kingdoms that support you, for the sun that shines upon you, and for the Divine Mind that gives you coherence in being, and joy.*

Gratitude, it's a spiritual solvent. It requires that you look beyond your small self to all that up-holds you. Even when times are bad, find something to be grateful for. It will help.

And that, my friends, is the best I can do for you.

I decided pretty much on my own that this was not a good speech to be giving to soon-to-be graduates at the end of the year (a time that should be fun-filled). I do think there would have been students and, maybe, even teachers in the crowd who would have profited from what I had to say,[9] but I also think there would have been students (and some adults) who would have been horrified.

After I made that decision, I had the school's psychologist read the piece. Her take was that there was so much baggage attached to the word *suicide*, for instance, that once I'd said the word, many would just glaze over and not hear another word I'd say (which I can see). Anyway, I've decided to give instead the more frivolous (and appropriate for the time) speech that included *the parting shot* (the talk about the Great Pyramid). It is off-the-wall, but it shouldn't upset anyone.

So to be complete, I'm including *that* speech, also.

_____x_____

[The speech I actually gave is provided below, to a good approximation. I say that because I didn't read it that night, I more or less winged it. What you are seeing below is the preparation write-up I created beforehand.]

> Good afternoon, folks. I'm happy to be here. As a preamble, this speech is about *whimsy* and *wonder*. Keep that in mind as we go.
>
> I was talking to Mr. Bracker a few months ago, and I told him something I think he found interesting: If you take a *hydrogen atom* in its *ground state* and do a little magic on it, expanding it up until the proton in its nucleus is the size of a beachball, the electron will be found riding on a spherical shell *two miles away*.[10] In other words, you will end

[9] Interestingly, I had Jack read the speech. He made some good suggestions, all of which I incorporated into my final draft. I'm mentioning this here because the one section that particularly affect him was the one that began "There is a blessing I particularly like." It was right at the end. What makes this so interesting was that I had written in my own words a version of the sentiments that were part of that blessing, but instead I used the Brother's actual words (it was a part of the transcript you recently read in the chapter titled *The Brothers*). I used their words because I thought they would carry energy I didn't have, and evidently I was right. It was that section Jack was most drawn to, so much so that he went out of his way to make mention of it when we talked.

[10] I didn't include this, but I was sorely tempted. When in the ground state, the electron's energy orbital is spherical (not so for higher order state, but so for the ground state). Before expansion, the diameter of that hydrogen atom would be around 10^{-10} meters across (that

up with *two-cubic-feet* of physical material wrapped up in the beachball sized proton and tiny electron, and around *fifteen-trillion cubic feet* of EMPTY SPACE inside the sphere. All atoms are made this way.

Bottom line: There is almost no physical substance wrapped up in the atom.

An illusion is a situation in which what *IS the case* is not what *APPEARS to be the case.* You don't look at your hand and think, "Ah, space." That's not what it appears to be. But that's what it is. There is almost no physical substance in your hand. In fact, if you removed all the space in your body, you would end up with a tiny speck you would need a microscope to see that would weigh 100, 150, 200-pounds, depending upon how much you weighed. Everything in the physical world is made up of atoms, which means everything around you is emptiness, which means everything around you is a first-class illusion. Your world is an illusion.

This is an example of what I call *whimsy*. I used whimsy in my classes to entertain my students. I would also do it because I want them to know that the world is a lot more exotic than they think. It was my little gift to them, to inject a bit of wonder into their world.

Another bit of whimsy and wonder I'd present to my students at the end of the school year was what I called *the parting shot*.

The parting shot would start with me showing a sketch of a building on the overhead. I'd ask if anyone knew what it was. Nobody would, so I'd tell them it's called *the Mena House*. I'd say that the Mena House was built as a hunting

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would be the diameter of that shell), and the electron would be traveling on that shell with speed of around *1400 miles per second*. Fourteen-hundred miles is halfway across the country. That's how far the electron would travel every second on that 10^{-10} meter sphere. As such, the electron would be essentially everywhere on the sphere at once. This is at least part of the reason why atoms appear solid. With the expansion, assuming everything increased proportionally, the electron's speed would be close to *the speed of light*. So again, it would be everywhere on the sphere at once, and again, the atom would appear solid. How's that for wonder?

lodge in the mid-1800's, then converted into a hotel. I'd tell them it still exists, that they could go and stay there; that *I* had stayed there. I'd tell them, additionally, that it is located on the Giza Plateau, whereupon I'd ask if anyone knew what else was found on the Giza Plateau. Someone would always say *the Sphinx* and *the Great Pyramid*.

I would then say: I'll be talking about the Great Pyramid today. This has absolutely nothing to do with physics, but I am doing it for a reason. There is a method in the madness. I'm going somewhere with this, so just sit back and enjoy the show.

(In the speech, I added that I don't normally tell my students this, but almost everything I was about to tell them came from the book *Secrets of the Great Pyramid* by Peter Thompkins. It was written in 1971 and is way better than anything they might get from Google or AI. I'd then continued.)

To begin with, the Great Pyramid is approximately 750-feet long. (By comparison, Poly's entire athletic field is 650-feet long.) It is approximately 485-feet high, which is right around one-and-a-half football fields worth.

It is made up of 2,500,000 limestone blocks. Their average weight is 5000-pounds, or two-and-a-half-tons, though there are some blocks that weight 140,000-pound. These larger stones are positioned over the King's and Queen's chamber to keep the roof from collapsing in on itself.

The structure is oriented dead-on north, south, east and west, accurate to four-hundredths of a degree. It is level to 3/8 of an inch over 400-feet (remember, they were working with 5000-pound blocks—just getting one block perfectly level must have been a feat—the entire pyramid is that way!).

It was faced with 22-acres of highly polished limestone casings (Poly's footprint, by comparison, is 15-acres). The casings were so finely fitted, you couldn't get a piece of paper between the blocks. That means if you were standing

15' to 20' away from the pyramid before its casings were removed (and I might add, the Moslems removed the casings to build things—the Sultan Hassan Mosque in Cairo, for instance), your inability to see the seams would have made the face look like a single, giant piece of highly polished limestone 750-feet long and 600-feet high (the slant height is around 600-feet).

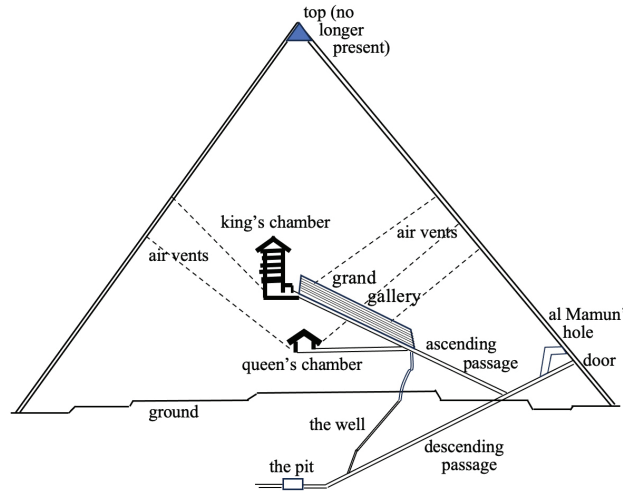
Called *the light* in ancient times, it was so brilliant in the sunlight that it could be seen from 200-miles away out in the desert. San Diego, by comparison, is 140-miles away, so you get an idea for distances.

We have papyri that say that there was one day during the year when the pyramid would *swallow its shadow*. This was referring to the fact that the north face of the pyramid is in shadow every day during the year except one—the day the sun is as far north as it will ever be—that day being the solstice.

As for its age: If you go there, you will be told that the pyramid was Cheops's tomb. Cheops was the Greek name for the pharaoh Khufu. As best I can tell, the main reason they think it was Khufu's tomb was because they found graffiti, Khufu's name, up in that section of 140,000-pound blocks. Khufu was pharaoh around 5000-years ago, so that's how old archaeologists think it is.

The history is interesting. The Moslems conquered the area around 640 AD. Around 820 AD, the caliph Al Mamun decided to try to break into the pyramid. Because the tools of the time were no match for the limestone, he built bonfires against the stone, then when the limestone was red hot quenched it with vinegar. The sudden change of temperature cracked the stone, and the workers would pick away at the cracks. He did this over and over again until he had burrowed 100-feet into the pyramid. On his last try, he heard a muffled thump off to the left, and burrowed toward it. He ended up breaking into what is called *the descending passage*.

(Because I couldn't show the sketch to the right, I hand-waved as I talked about the pyramid's layout.)



The descending passage is 350-feet long. At the upper end is the doorway, though that wasn't evident to al Mamun because the casings were still in place. At the other end, it levels out into a short passageway that leads to an unfinished room that has since been dubbed *the pit*.

One-hundred-feet down the descending passage, there is a junction with another passage called *the ascending passage*. Al Mamun found it blocked with a granite plug, which he had to dig around (it has since been removed). A little over 100-feet up that passageway is another junction. Move along the horizontal corridor and you get to what is called *the Queen's Chamber*. Keep going straight and you enter *the Grand Gallery*. The Grand Gallery is only about 7-feet wide, but it's 30 or so feet high and around 150-feet long ending at *the King's Chamber*. There is, in other words, this huge chasm in the middle of the pyramid.

At the end of the Grand Gallery, there is a hanging stone. Duck under it and you enter an anteroom. Duck under a second stone and you are in the King's Chamber. When Al Mamun entered, he found nothing more than the granite bottom of a sarcophagus holder . . . no top, no mummy, no nothing. The place was clean as a whistle. This, I'm sure, he found to be very strange. Why would they build an impenetrable pyramid as a burial chamber, then not put the mummy in it? Very odd.

But there was something more disconcerting. If you are ever in the structure alone (as I was, but as you will

NEVER be as the place is always teeming with tourists), if you hum a single, low, protracted tone, within moments the chamber will be booming with sound. This is because the King's Chamber is a perfect resonating chamber. In fact, the entire pyramid is a resonating chamber as you can stand in the King's Chamber and hear people talking all the way down *at the pyramid's door*. And it's not mumbling you hear. You can actually hear conversations. Very freaky!

And a word about the passageways. They are around 4'x4', so you have to bend over to pass through them. And although they are rough-hewned, they are dead-straight. That means that if go to the bottom of the descending passage and look up along the passageway, you will see a tiny patch of sky out the open door. And if you do this at night, you will see a star in the middle of the patch . . . *and it will never move*. That's because the descending passage points directly at *the north star*.

I don't have time to explain all the mathematics wrapped up in the structure, but I will give you a taste. If you take the outline of the pyramid, drop an altitude to form a right triangle, and set the base equal to 1, the slant side will be 1.618, or ϕ (phi). Phi was considered a *sacred number* in ancient times. It is the ratio you get when dividing any two consecutive numbers in the Fibonacci series together, and it is the basis for the golden rectangle, which has the bizarre property of having an infinite number of golden rectangles inside it. With a golden rectangle, you can generate a logarithmic spiral, which is a form that is found everywhere in nature. In other words, ϕ is baked into the geometry of the world around us. The Pythagoreans, a secret society that existed in six-century BC, used a pentagram as it symbol because it has $1/\phi$ in it, ϕ, ϕ^2 and ϕ^3. It is considered a mystical symbol *because* it has ϕ shot through it . . . and ϕ is an evident part of the geometry of the pyramid.

So also is *pi*. You all know that $C = 2\pi r$, which means that if you take the circumference, divide by 2, then divide by the radius, you get π, or 3.14159. If you substitute the perimeter of the pyramid for the circumference, and the height for the radius, then do that same calculation, you 3.14159.

That means π is also baked into the pyramid.

The bottom line is that this is a pretty amazing structure: level to 3/8 of an inch; oriented directly north, south, east and west; casing so finely fitted you couldn't get a piece of paper in between the blocks; has a passageway that points directly at the north star; swallows its shadow on the solstice; has baked into it sacred math. Given that most people think the ancient peoples didn't have the knowledge or technology needed to build something like this, this place should *not be here*! And yet it is. You can go see at it for yourself.

Humans don't like mysteries, so it shouldn't be surprising that some have suggested that it couldn't have been built by humans, so it must have been built by ancient astronauts. *I don't believe that was the case.* I think we just don't know as much about the ancient world as we think.[11] All of that is inconsequential, though, when it comes to *the parting shot* . . . which is what I am about to give you.

You are about to go off the college. When there, you will come into contact with really smart people, tenured professors who have PhD's and have devoted their entire lives to their area of research. And you are going to have the chance to take classes from these people.

You need to learn everything they can teach you. That's why you are there. And you need to know that when there, those professors will do their level best to give you a thoughtful, coherent presentation of the subject matter. They will not want to confuse you by throwing in anomalies.

If you take a class in ancient Egypt, for instance, they will probably at some point talk about the Great Pyramid. When they do:

—They will not point out that just as you don't find taggers merrily haunting the alley ways of Washington DC, tagging buildings with Trump's name (Trump might do that,

[11] Although I certainly wouldn't have said anything about this being a place of the Brothers, I was tempted to say I thought the structure was a part of the Mystery Schools of ancient times. I didn't do that because I knew people wouldn't know what the Mystery Schools were.

but not taggers), believing that whoever put the name Khufu as graffiti on that 140,000-pound block over the King's Chamber was naming the pharaoh who was supposedly building the structure is a little far fetched.

—They will not point out that it doesn't make much sense for someone to *build to completion* an impenetrable, robber-proof edifice like that as a tomb, then *not* put the pharaoh into it.

—They will not tell you that forty-years ago, German tourists, who happened to be geologists, noticed that the Sphinx, which is older than the Great Pyramid but not necessarily a lot older, had erosion marks on it. But it wasn't wind erosion, which is what you would expect in the desert. It was water erosion. Looking into the geologic record, they found there hadn't been the kind of precipitation needed to do this *for 15,000-years*, so they concluded the Sphinx and pyramid were at least 15,000-years old.

—And lastly, when talking about how the pyramid was built, they will tell you it was done with slaves pushing those 5000-pound blocks, not to mention the 140,000-pound blocks, up ramps. They will not tell you that given its height and the need for a small ramp angle, the amount of material needed to make those ramps would be two to five times the amount of material in the entire pyramid itself, and there is no evidence that that is what was done.

They would point out none of these things because they wouldn't want to muddy the water and confuse you.

So where are we? You need to learn what they have to offer because most of it will be worthwhile. But don't let them convince you that we have figured out everything there is to know about the world, that we've got things wired. We don't. The Great Pyramid is testament to that.

In short, don't let them kill out of you your willingness to *stand in wonder*. Because I can guarantee, there are things in this world that are *worthy of wonder*.

And *that*, is the parting shot.

Chapter 55

Afterthoughts and Stuff That Didn't Fit 4 --First Science, Then the Brothers--

[I'm hiding these last two chapters toward the end of the book because I assume anyone who has gotten to this point will be at least somewhat sympathetic to the ideas I have been putting forth, and because some of what I'm about to talk about may at first seem a bit *out there* (in fact, this was written in the early 2000; as of 2025, that statement might be a bit outdated—the material is still interesting and the bottom line important, though, so keep chugging). What's more, things are going to unfold like a Chinese puzzle, which is to say that what I'm about to present has lots and lots of parts all of which fit together nicely, but not in an immediately observable way. In fact, it's going to take the full two chapters to piece everything together.

Throughout, though, *admittedly weird* will be our passwords. More to the point, what is important to understand is that as completely off-the-wall as these chapters may seem in an intellectual and/or societally and/or historic way, there is a message embodied at the end of the two chapter that all the craziness is going to service. No matter how put off you may be by what you read, read through to that last sentence (and don't jump ahead, you clod—that is SO not cool).

And so we start . . .]

I am continually amazed at how normal life and the world appears to be on the surface, yet how convoluted they are underneath the contours.[1] Not that I want to appear harsh, but some have taken this idea

[1] This brings to mind how misleading *Occam's razor* can be. By metaphorically "shaving away" seeming non-essentials, Occam's razor suggests that when two competing theories are being evaluated in the analysis of a problem, the *simplest solution* is usually the correct one. I've run into people who have used this idea to argue against the idea of reincarnation.

My retort to that is: The sun comes up over the eastern horizon every morning. A few

to ludicrous lengths. The best example I can think of are the Fundamentalist Christians who believe that the earth is only 6000 years old but appears older because God decided, for some obscure reasons, to conjure fossil evidence that fakes humanity into believing that the earth is at least 3,800,000,000 years old.[2] If there were reasons beyond faith and an unreasoning, literal interpretation of the Bible to believe this, it would definitely qualify as a legitimate *odd things happening behind the scenes* kind of thing. But as far as I can see, there aren't, so I'm leaving that one alone.

Translation: Simply being weird doesn't confer upon an idea the moniker of being *an accurate reflection of the reality of this place*.

Having said that, there is weirdness in the world that *is* knowable, at least by my lights, and that *is* fascinating. I'll start on what I presume most people would call *solid ground* by looking at a few of the weirder things modern science has uncovered about the physical world.

1.) The atom is a good start. Atoms make up everything you and I think of as the physical universe. And as a fair portion of our physical universe seems solid, it seems reasonable that atoms must be solid or, at least, substantive themselves. In fact, nothing could be farther from the truth. As I pointed out back in Chapter 8 and again in Chapter 54, there is practically no physical material involved in the structure of an atom. They are almost entirely made up of *empty space*. If you think about it, this characteristic is mind-blowing. Everything around you, your body, the chair you are sitting on, the table that supports your dinnerware, the street you walk upon, everything around you is almost completely, totally, unequivocally populated by *nothingness*. As I've said, "What the world appears to be (i.e., substantive) is nothing at all like what it truly is. The physical world is *a first-class illusion*."

And with that we have our first bit of certifiable weirdness . . .

2.) Energy is of great concern in this day and age. We need renewable energy. We need clean energy. We talk about energy all the time. But what *is* energy?

In the world of physics, an object has energy if it has the capability of affecting other objects. Apply a force to *object A* as it moves over some

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hours later, it is overhead. A few hours later, it goes down over the western horizon. I am clearly not moving, so the sun must be moving around the earth. Occam's razor!

[2] The geological evidence suggests that the earth is 4.5 billion years old, but there are apparently fossilized microorganism found in "hydrothermal vent precipitates" in the ocean that are dated to around 3.8 billion years. (I talked about all of this in Volume 1 in a chapter that was written "just recently," which is to say, in the 2020s.)

distance (this is called *doing work* on the object, and in this case, we are assuming the force is in the same direction as the motion) and the object picks up speed. If *object A* then runs into *object B*, maybe motivating *B* to itself begin to move (or maybe just deforming it—putting a dent in), *A's* ability to affect *B* is wrapped up in what is called *A's kinetic energy*—its *energy of motion* (hence the word *kinetic* in the descriptor). Nothing exotic here. *A* has energy; *A* can affect *B*.

Let's look at another situation. Electrons in an atom are constrained to exist in very well-defined energy levels (these levels are called *orbitals*, though the electrons don't move in them in well-defined orbital paths as do planets around the sun—the word *orbital* has been used with some license here). So let's say an electron is in the orbital associated with what is called the atom's *second excited state*, and let's assume that while in that state it has energy E_2. At some point, the electron moves to the *first excited state*. This state has a lesser energy E_1 associated with it. The jump requires the electron to dump energy, specifically E_2-E_1's worth. The dumped energy leaves the scene. If it enters your eye, and if the energy content is just right, your eye will register *light*. This is how light is produced.

In other words, light can be associated with bundles (or particles) of energy (these are called *photons*). But here's the rub. If you were to send that light through a thin double-slit, it would act like a wave and do things waves are known to do but that *particles* could never do. Then, again, if you were to fire that energy at a photoelectric plate, it would act like a particle doing things *wave* could never do. So which is it, energy in the form of a particle or energy in the form of a wave?

In fact, it depends . . . and *that* is our *second* bit of weirdness for the chapter!

3.) Continuing on with our discussion of energy: Objects have, inherently, a certain amount of *resistance to changing their motion*. This is called inertia. We quantify a body's inertia with what is called *mass*. That is, an object with a *large mass* will have a lot of *resistance to changing its motion* whereas a body with a *small mass* will have little *resistance to changing its motion*—think of a Volkswagen versus a box of Kleenex.

Let's say you are out in space, and you decide to apply a constant force to an initially stationary block of mass *m*. You continue applying the constant force as the block accelerates. In doing this, the work you do on the block via this force gives the body energy (I'm setting this up in space so that the only force acting on the block will be the push).

For this situation, what will change over time?

If you think about it, you should conclude that the block's *position* will surely change with time. So will its *velocity*, and so will *time* itself.

Can you think of anything else?

Most people would say *no*. But in fact, there is one other thing that will change (and no, it won't be the force or the body's acceleration—both of those will be constant). That something else is the block's *mass*. The mass will increase with time.

If you are a reasonable person, you have to be thinking, "Accelerate a body and its mass changes? You *have* to be kidding!"

Response: Nope, not kidding. If you start out with a stationary, $1.\overline{0}$ kg mass (the bar over the "0" means the zeros goes on forever) and accelerate it to *100 miles per second*,[3] its mass as it passes a stationary observer will measure to be 1.000000146 kg. It will exhibit the characteristics of being *more massive*. Get the body up to *100,000 miles per second* and the measured mass will read 1.186 kg. Get it up to *170,000 miles per second* and its measure will read 2.46 kg. And get it up to *185,999.9999 miles per second* (this is .999999999 of the speed of light) and the mass will measure at 30,496 kg.

. . . That's right, the body will have *thirty-thousand times* more inertia, which is what mass measures, than it had at rest.[4]

Going back to the top of this section, our doing work on *object A* didn't just give it energy of motion—kinetic energy. A little bit of the energy we put into the system went into increasing the object's mass. It was minuscule (mass increase only really shows itself when energy is put into something moving at really high speed), but it occurred . . . and you and I had no idea it was happening.

Surprisingly, you have the key to explaining this weirdness. What is the one equation from Einstein that you know? Answer: $E=mc^2$. What Einstein was saying with that relationship was that mass and energy *are two forms of the same thing*. He even called mass "frozen energy."

And as an additional aside, nature makes use of this *whatever it is* in bizarre ways. It turns out that matter can be *created out of nothing more*

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[3] Minor note: Although we can get subatomic particles up close to the speed of light, the fastest we've been able to get big objects to move is the Space Shuttle in space at *17 miles per second* (fighter jets go ¾ miles per second). In other words, *100 miles per second* would be incredibly fast for a large object.

[4] This is why Einstein maintained that *nothing physical* can ever go the speed of light. In accelerating a body, once you get close to the speed of light, almost all the energy goes into increasing the body's *mass*, not its *velocity*. In other words, to get a body up to the speed of light, it would require an infinite amount of energy as the mass (its inertia) would become infinitely large in the process.

than pure energy. We can do it in the lab. If we radiate a vacuum (an enclosed area in which there is nothing—no air, no nothing) with gamma radiation, we will see particles and their antiparticles (example: electrons and positrons) come into existence out of that nothingness. On the flip side, if we collide a particle and its antiparticle into one another, they will completely annihilate with nothing left after the explosion except pure energy. *Mass* and *energy* really are two forms of the same thing!

Taking this even farther into never-never land: The mass of a hydrogen atom is around 1.67×10^{-27} kg. Take two identical hydrogen atoms, force them together under the influence of a billion atmospheres of pressure, and the fusion that occurs will produce a single, helium atom.

Oddly, the mass of a helium atom is less than the sum of masses of two hydrogen atoms, .7% less. So if you were to fuse *one gram* of hydrogen into helium, you'd end up with *.993 grams* of helium. And where would the missing *.007 grams* have gone? It would be turned into pure energy. How much pure energy? Enough to throw 350, four-thousand-pound Cadillacs 100 miles into the atmosphere. That is how much energy is released in the fusing of one gram of hydrogen into helium. (Small wonder that the hydrogen bomb, which is fueled by this process, is so destructive.)

The sun fuses 657,000,000 TONS of hydrogen into a little over 652,000,000 tons of helium *every second* (yes, that means the sun is getting lighter by 4,000,000 to 5,000,000 tons a second). The energy from that converted mass is what allows our star, the Sun, to so nicely light and heat our planet even though it is 93,000,000 miles away.

So going back to the premise that was stated in the previous section: "Energy is of great concern is this day and age. We need renewable energy. We need clean energy. We talk about energy all the time. But what *is* energy?" As much as we take the idea of energy for granted in our everyday world, what energy *is* is *way weird,* and its relationship to *matter* IS BEYOND THAT.[5]

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[5] A fun fact and a fun note. First, the note: Years ago, I went to a *California Association of Independent Schools* meeting at Chadwick School on the Palos Verdes Peninsula in Southern California, and the keynote speaker was the Nobel laureate in physics, Richard Feynman. He made his opening remarks to the assembled throng, then everyone split up into their individual disciplines for discussion. The English folks went and talked about matters of interest to English teachers, the language teachers went to talk amongst their numbers, etc., and the science folks spent two hours talking to Feynman. During our time with him, I asked, "Dr. Feynman, what is energy?" I knew the answer to the question, but I was curious to see what one of the big guys in the world of physics would say. Without missing a beat, he said, "I have no idea." And with that he spoke for the entire scientific community. We know when a body has energy. We know how to generate energy. We know how to store

4.) New topic: Imagine being able to walk through walls. At the subatomic level, subatomic particles can effectively do that (pass through boundaries that are as solid to them as walls are to us). It is called *tunnel*, and as far as I'm concerned, the fact that subatomic particles can do it is weird.

5.) Imagine living in a world where you could be sitting at your desk and a rabbit might suddenly appear out of nowhere for just an instant, then blink out of existence just as suddenly. That kind of thing happens at the subatomic level (not with rabbits but with subatomic particles). Called *virtual particles,* their existence is governed by the Heisenberg Uncertainty Principle, but that isn't what's important here. That this *now you see it, now you don't* kind of thing can happen at all *is just weird*![6]

6.) In the third grade, you were probably introduced to the idea of gravity. It is the force the earth exerts on you that holds you down, and it is the force that keeps the moon in its orbit. In reality, gravitational force doesn't exist (even Newton, who came up with the idea, couldn't see any reason why two object—you and the earth, for instance—might be attracted to one another . . . which is what gravity suggests). But gravitational *effects* exist, so what's the deal?

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energy. We know how to use energy. We know how to send energy over long distances. What we don't know is what energy actually is . . . and that's just weird!

As for the fact: Although the idea of mass as a measurement of a body's inertia is a useful theoretical tool, modern scientists no longer believe that physical objects actually have mass. Instead, they maintain that the effect we call inertia is really due to the interaction of objects with what is called the Higgs field. I'm not going to talk about how all the phenomena we've just discussed can be explained through this view. I *will* say we are still talking *weird*, though, and I'm good with that.

6 The Standard Model in physics postulates that two protons will repel each other because they exchange force-intermediaries (virtual particles) called photons. Heisenberg's Uncertainty Principle maintains that the more massive a virtual particle is, the less time it has before blinking out of existence (and the shorter distance it can travel before that blinking). Photons are massless, so they exist forever and have an infinite range as a consequence. The outward manifestation of photon exchange is what we call *the electromagnetic force*.

BUT, if two protons are side by side in an atomic nucleus, they won't repel, they will attract. How so? Protons are made up of quarks. Quarks are constantly emitting virtual particles called gluons, which interact *attractively* with other quarks (and protons). These virtual particles are super massive and, consequently, are very short lived and ranged (like, they can only travel the diameter of a proton before decaying). Their strength in that range, though, is 100 times that of the photon-producing electromagnetic force. The manifestation of this interaction is what we call the *strong force*.

So when two protons are next to one another, the exchange of photons push the protons apart while the exchange of gluons pull them together, with the gluons winning as long as the protons are within one proton's diameter apart.

The point is, a gluon is a force-intermediary that is a *virtual particle*, so now you see it, now you don't.

It has to do with space. You and I see space as a nice, three-dimensional, homogeneous void with *time* (a *measure of the passage of the moment*) being independent of space. The reality is that that isn't the reality. Space is actually *four dimensional* (at a minimum) with *time* being as much a part of it as is length and height and depth.

You (and I) tend to assume that time runs at the same rate everywhere because that what it seems to do. In fact, it doesn't. Time at the seashore runs more slowly than time in the mountains. This is the consequence of the fact that the presence of matter alters the geometry of this four-dimensional space, *warps* it, making it different from point to point as you get nearer and nearer the surface of a massive object (which is what you are doing on Earth, on average, as you get closer and closer to sea level). This is not at all evident to everyday folk (again, like you and me), but is a measurable fact.[7] Time is literally a part of the *fabric of space*, which means our vision of *space* is still ONE MORE ILLUSION . . .

You may think, "So space isn't what our senses tell us it is. What does that have to do with the claim that gravity doesn't exist? How, for instance, does the moon orbit the earth without gravity?"

Answer: Massive objects (like the earth) warp the geometry of space around them, so an object passing through that space (like the moon) will be motivated to follow a force-free, straight-line path that appears to be curved from the "outside" because the geometry of the space it is traveling through is curved. You could do a similar thing. Begin walking to the east and sooner or later you will come up over the horizon from the west (having walked around the earth). You will be walking in a straight line, but you'll be doing it in a curved geometry.

And once again, we are talking *weird*.

7.) How fast can you snap your fingers? (Go ahead—see how many snaps you can jam into a second.) Stand up and see how many times you can spin around about yourself in a second. (Actually, trust me and DON'T do that . . . you can only do two or maybe three in a second . . . trying will just end in your hurting yourself.)

A neutron star can rotate upwards of 700 times a second.

"That's not so impressive," you say. "I have a power drill that can rotate at that speed."

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[7] Atomic clocks are accurate to a thousandth of a second over thirty-thousand years. Set two to exactly match one another, put one on the third floor of a building and the other on the ground floor, come back in three years and compare the two. You will find that the clock on the ground floor will have run more slowly than the clock on the third floor. Time really does move at different rates at different places.

Ahhh, but a neutron star is the left-over core from a supernova. It has the mass of, maybe, *one-and-a-half suns* squashed into a diameter of 12 to 15 kilometers.[8] Neutron stars are so dense, a teaspoon of one (as measured on earth) would weight upwards of *ten-million tons*. That's comparable to the density you would have if you compressed 1000 Nimitz-class *aircraft carriers* into the *size of a marble*.[9]

Think about this for a minute. After having supernova'd (and because *conservation of angular momentum* is a thing), there are object in our universes that are several miles across, so dense that a teaspoon's worth would weigh upwards of *ten-million tons*, and that rotate hundreds of times faster than you can snap your fingers.

You gotta admit, that's pretty weird!

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[8] How big is this? The distance between the center of Los Angeles and Pasadena, California where I live, is somewhere around 11 miles (it takes fifteen to twenty minutes to drive from my house, through Pasadena and down the Pasadena Freeway to get to central LA, traffic notwithstanding). This is 17.7 kilometers. These objects, in other words, have a diameter that could fit between Los Angeles and Pasadena.

[9] How we know about these objects is interesting. When a star whose core is between 1.4 and 1.8 solar masses dies, it does so by experiencing a supernova—a giant explosion. The outer part of the star is blown outward and the inner part blown inward. The implosion forces all the electrons into their respective nuclei where they combine with protons to form neutrons. In doing so, *all the space* inside those atoms is lost (this is why neutron stars are so small). It is neutrons jammed up against one another that stops the implosion (this is why neutron stars are so dense). I talked about all of this in earlier chapters.

All celestial bodies rotate (the sun takes 24 days to rotate once about its axis). Spinning objects have what is called *angular momentum* (L). A body's angular momentum is determined numerically by multiplying its angular speed (ω)—this is the number of radians it rotate through per second—and its *moment of inertia* (I)—this is a mass-related quantity that is dependent upon both the body's mass and its mass-distribution about the axis of rotation (a spread out object will have a larger *moment of inertia* than the same mass with mass distributed closer in to the axis of rotation). So mathematically, angular momentum $L = I\omega$.

Conservation of angular momentum claims that when there are no external torques acting on a body (which is the case with celestial objects), the body's angular momentum (L) will not change. So if our *sun-and a half* sized core (large I) experiences a supernova and becomes very small (small I), the body's corresponding angular speed ω, MUST GO UP (mathematically, $I_{\omega} = {}_{I}\omega$). This is a long-winded way of saying that with the supernova, the core's angular velocity goes up precipitously and it ends up spinning really fast.

The explosion additionally generates what is called *synchronous radiation* in the radio frequency range. Synchronous radiation is a blast of radiation that comes out from the collapsed core in a directional beam. As the mass spins, that beam sweep out an arc that radiates into space. If Earth happens to be in the beam's path, then every time it (the beam) sweeps by, a radio telescope can pick up the signal (this is why these objects were originally called *pulsars*). To date, we have recorded radio signals coming from many pulsars in the universe. Not surprising, when you play the signal through a speaker, the thump, thump, thump you hear is periodic. Count the number of thumps per second and you have the frequency of the spin. There are some that are only a few thumps per second. The fastest are in the 600 to 700 thumps per second range (and a lot faster than you can snap your fingers!). Pretty cool, eh? (I play a recording of some pulsars for my students in class every year—if you have the time and want to listen, go to https://www.youtube.com/watch?v=gb-0P6x_xDEU and remember, each thump is one rotation of a super massive object that is 10 to 12-kilometers across).

8.) Kay was no physicist. She read a lot, but not sciencie stuff. Any pronouncements the Brothers made about the physical nature of the world were not filtered through anything Kay may have known. Science was not her thing.

That said, I remember the Brothers talking about the subatomic world back in the early 1970's and saying that although science may never be able to "see" them, the real elementary particles of matter were made up of tiny, tiny, tiny, *complex, geometric forms*. I found the observation interesting but not something I could really do anything with. It was sort of a throw-away line.

In physics, one of the great mismatches in our understanding of the world comes with the disconnect between Einstein's view of the greater cosmos, wrapped up in his Theory of General Relativity (this deals with what Newton would have called *gravity*), and our understanding of the subatomic world wrapped up in the theory we call Quantum Mechanics. Aside from the fact that General Relativity is governed by rules that are deterministic while Quantum Mechanics is governed by rules that are probabilistic, the main sticking point—what has kept physicist from being able to merge the two theories into one unified whole—has been the fact that the effective force postulated by General Relativity (again, what Newton would have associated with gravity) is a thousand, billion, billion, billion, billion (10^{39}) times *less strong* than the strongest of the forces found at the quantum level (i.e., the Strong Force). Yet there are situations in nature, like inside supernova-produced black holes (where the mass of a star's core collapses *forever* creating a structure that is so gravitationally dense that not even light can escape), in which both Relativity and Quantum Mechanics *must coexist* . . . except, according to our current theories, the two can't because the forces involved are so disparate.

Enter *String Theory*. String Theory is a theory that suggests that every subatomic particle, along with the four fundamental forces we have identified on the physical level, are really the manifestation of tiny, tiny, tiny threads of energy—strings—that "live" in an 11-dimensional geometry (of which our senses can only detect four, *time* included) and whose specific vibratory patterns determine what kind of particle or force they are.

Though it may not be obvious here, what makes String Theory so attractive on a theoretical level is that it solves the *we can't reconcile Relativity and quantum mechanics* problem quite nicely. Unfortunately, if they exist, strings are really small, like at the 10^{-33}-centimeter level (that's a millionth of a billionth of a billionth of a billionth of a centimeter, versus

the size of an atom at 10^{-12}-centimeters, which is a millionth of a millionth). That means strings are something we, in all likelihood, will never be able to interact with. This, in turn, means that as eloquent as is the theory, physicists have deemed it a non-starter because it is not something we can test.

Still, it does suggest a world that is weird, and that's what we are all about here . . .[10]

9.) The last bit of bizarreness I'll mention that modern science finds acceptable is the human body, a structure that seems quite compact and every-day and unprepossessing but that is, as I pointed out in the E.Phil book (and Volume 1), anything but unremarkable. What I said there was:

> . . . made up of somewhere around *60,000,000,000,000* (sixty trillion) cells,[11] each of which carries the DNA plan for the entire complex. Each cell knows exactly where it fits into the blueprint, which is fortunate. If that were *not* the case, skin cells on your hand could mistakenly follow the blueprint for cells used in tooth enamel and you would end up with a hand as hard as a rock.
>
> There are *75,000 miles* of capillaries, veins, and arteries in the body's blood transport system; the heart muscle pumps the equivalent of *500,000 tons* of blood in a normal lifetime.
>
> The lungs are made up of *250,000,000* tiny air sacks, and the body's bone marrow produces *1,000,000* red blood cells *every second.*
>
> There are *125,000,000* rod cells per eye with each cell containing *30,000,000* molecules of light-catching pigment. The eye can transmit *1,500,000* signals simultaneously to the brain, which contains *30,000,000,000* neurons. Each

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[10] And back to the Brothers' early, 1970's observation about the subatomic world: String Theory didn't really come out into popular notice until the mid 1980s, and when the Brothers made their claim, they didn't specify the true subatomic building blocks to be "eleven-dimensional, vibrating strings." But if you think about it, another way to describe strings would be to call them "tiny, tiny, tiny, complex, geometric forms," which is what the Brothers *did* say. Again, pretty cool, eh?

[11] How big is sixty trillion? If you had sixty trillion dollars and wanted to spend it, you would have to spend around $3,500,000 every hour, 24 hours a day, 365 days a year for 2000 years to get rid of your money. That is, if you started at the time of Christ, you'd still have around two-hundred forty-billion dollars left to spend as of January 1992 when the E.Phil book was first printed.

neuron can be connected to as many as *80,000* other neurons at once.

The body's DNA provides the immune system with the capacity to produce over *1,000,000,000* antibodies allowing the body the potential to fight off diseases that don't even exist yet. The liver can perform over *500* tasks, some of which cannot be duplicated today within our finest chemical laboratories, and produces over *1,000* different enzymes. Without its services, we would not be able to detoxify such poisonous materials as nicotine, caffeine, alcohol, and the myriad of other "food products" we human seem to indiscriminately ingest on a regular basis.

As each body part is enormously intricate within itself, when laced together into "the system," the living machine we end up with is absolutely beyond belief. Through the agency of a number of very sophisticated systems (the nervous system, the digestive system, the lymph system, etc.) the body has the ability to coordinate the activities of its very different, very independent parts (the liver, kidneys, brain, not to mention the astronomical number of individual cells that work together to make up these parts) in such a way as to allow it to survive *without any conscious effort on your part*.

It would take a large library to catalogue all we currently know about how the body works. It would probably take a city of libraries to catalogue all we don't know.

In short, your *I'll just take it for granted* body is a weirdly marvelous engineering wonder.[12]

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[12] I mused on in the E.Phil book: "With all this in mind, think now about that nice, clean, tidy theory of evolution science has laid before us. Noting that nature doesn't appear to migrate toward complexity on its own—science suggests that, if anything, nature tends toward disorder (thermodynamic entropy . . . think about the state of your house after a week of neglect)—what are the odds against something as remarkably complex as a human-body evolving *by pure chance* from nothing more than *four molecular compounds and some lightning* (that being what was available on primeval earth)?

A mid-1980 *Science News* article announced the revised results of two university professors who had done just that—calculated the odds that humankind could have evolved to its current point from scratch, so to speak. The old estimate was one chance in 1,000,000,000,000,000,000,000,000,000 (that is, one in one-trillion-trillion). By doing some clever assuming, the professors had gotten it down to a more respectable *one chance in 100,000,000,000,000* (one-hundred-trillion).

[Note not included in E.Phil book: Imagine approaching a couple of Caltech's Nobel laureates and saying that you've been told that there is a million-to-one chance that psychic

x

[OK, what's the point?]

So much for a few of the things I find remarkable that are under the radar as far as most people's understanding of our physical world goes, but that are nevertheless accepted by modern science.

What are a few things that can be added to this mélange of weirdness that I wouldn't have known anything about without my contact with the Brothers?

A.) Although life *seems* to be a hit and miss proposition, it is not. Sure, there have been times when I have freewheeled through experience, but there have also been times when it has, at least in retrospect, been screamingly apparent that there was something I had to experience and/or learn, and that my ability to extricate myself from the drama simply didn't exist. That is not to say that fate ruled—I still had *freedom of will*. It was just *freedom of will* within a necessarily restricted circumstance. If I had made earlier choices that had alleviated that necessity, the circumstances would have changed and karma would not have drawn me into that experience (or if it did, my reaction to and my dealing with the circumstance would have been wholly different). The point is, *you are your own parent* and *there are no real accidents*. There is a method to the madness. There is nothing that happens to you that doesn't have within it the possibility of some level of enlightenment or advancement as a human Being.

B.) When you look at a small child, you are not looking at someone

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phenomenon is a reality, and with those odds, you believe it exists. They'd laugh you right off the campus. Yet biologists in the 1980s were willing to say that life evolved from scratch by chance with *one-hundred-trillion to one* odds against. Not to piss my biology friends off, but I find that INCREDIBLE! And even though scientists have been very clever in their arguments to diminish what I'm about to point out, I continued in the E.Phil book to say:

"To put this in perspective, you'd have a better chance of taking a cargo plane to 10,000 feet, dumping a half million bricks and five tons of mixed concrete out its bay doors, then expect to find the bricks landing *by chance* in such a way as to construct a completely finished, two story, old-English style home, complete with patio and Jacuzzi appropriately situated in the back yard."

But humans exist, you say, so there certainly was a mechanism that made it so, even if it was blind chance. The point of this section is not *how* it happened, but how incredible the final product actually is.

And what was that clever argument scientists came up with to counter all of this? It was that *we've had an infinite number of universes happen, so sooner or later, one would have to produce that brick house* . . . to which I say, "REALLY? . . . and you don't find *that* any more remarkable (or, for that matter, unlikely) than the "God made the worlds in seven days" version of creation?]

who just came into existence. You are observing a Being that has a long trail of karma generated due to a long path of previous experiences. As I said above, a child is its own parent.

C.) The general feeling I always had about the United States was that it was a basically good place populated by good people. With the exception of the darkness that infected the South, what with the way blacks have been treated (more about that later), I've always thought that the Beings animating bodies here have generally been "good folk." But if you had told a U.S. infantryman fighting Nazis in Germany during WWII that in the year 2017, a United States President would openly accepted and court the support of Neo-Nazis via the Alt-Right movement, they wouldn't have believed it. And yet that is what we now have in our nation.

What was I missing? How could a change like that happen over a few short generations?

What I wasn't seeing was that the population of a nation is a constantly changing mix of Beings coming into and out of bodies. And although a nation will carry an overall tone at the cellular level, a nation's superficial tone is constantly changing *depending upon the Beings who are in bodies at any point in time*. There is absolutely no guarantee that the Beings coming into bodies during a particular period might not be burdened with strong insecurities and prejudices, and might not be very tribal in their nature. In fact, there is nothing to preclude some of the Beings who died in WWII as German soldiers, Nazis even, from coming into bodies in America in the twenty-first century. Reincarnation opens up all sorts of possibilities. And if that be the case, it shouldn't be surprising to find that the tone of the country might change with time.

The point is, believing that America could never become a Nazi Germany is, unfortunately, a pipe dream. Countries become what their people allow them to become (given a fair dose of karma in the mix). The German people were angry about the humiliation they were made to suffer after WWI, and so they embrace the populism of the Nazi party in the early 1930s making Hitler and WWII a forgone conclusion. There are whites in this country who are deathly afraid of losing their privilege, and that could lead us to a similarly bad place.

I am terribly grateful for all that being an American citizen has given me, and I wouldn't trade being an American for the world, but blindly, unthinkingly believing that the U.S. is this pristine place (something blacks have ALWAYS known was not true) that could never find itself in darkness is a huge mistake.

D.) When I'm not thinking clearly, my reaction to people and situ-

ations are always about "the other guy," whereas the fact is, it is always about me. We see life through the prism of our personal experience, yet unless we happen to be particularly introspective, it isn't at all evident that the reason we don't like "that guy" is not because that guy is a jerk (though he may be), it is because that guy is mirroring back at us not-so-good characteristics that are a part of ourselves. That mirroring is one way karma works to awaken us.

E.) "You paint a room with your thoughts." Atoms absorb experience, much the same way a photographic emulsion absorbs light. The Sanskrit nod to this is in reference to *the Akashic Record*. Being a part of the Divine Mind, atoms are conscious (though it isn't human-like Consciousness). The consequence is that even though their outward structure may be the same, no two atoms of a particular element are alike.

F.) When I think of our *younger brothers*, I just naturally think about the Beings that animate puppies and kittens and hummingbirds and dolphins. But Nature's task is to reflect the state of mankind, so what about the humans who constrict or poison others on a mental level. What about the creatures that have to reflect back at humanity those qualities. Think about what it would be like, for instance, to have to animate the form of a snake, an animal that is fated to either squeeze to death or inject poison into its prey. It is very sad, in my opinion, that there are Beings—our younger Brothers—that must take on that task, but that is where humankind is, so that is what Nature has to do. This, not to mention the additional sad fact that we *kill* animal-forms for food.

Humans owe an enormous karmic debt to our *younger brothers* (one of the things the Brothers said in the first meeting I ever attended, and what stopped me dead on the issue of eating meat) and most of us are completely oblivious to the fact (myself included until that meeting).

G.) And above and beyond all else, there are Beings who are vastly beyond you and me in spirituality whose selfless dedication to the service of mankind in particular and life in general protects us in a myriad of ways from powers that would do us grave harm on a spiritual level, yet there is very little actual, concrete evidence to the untrained eye (for good reason) to suggest that they do now or ever have existed.

In short, as awkward as words are to express, this place appears to be *straightforward* and *obvious*. In reality, IT IS NOT!

Chapter 56

Afterthoughts and Stuff That Didn't Fit 5 -- Time To Be Totally Outrageous --

[This is an extension of the last chapter—we are still talking about different levels of *weird*. And a warning, I'm about to take you down the primrose path and it may stretch your sense of credulity to the max (though some of what you will be seeing will be a reiteration of material presented in Volume 1, so maybe it won't be as shocking as I'm thinking). I'm doing this for a reason. Even when you run into stuff that completely outrages your sense of propriety, read on. The by-line for this chapter is TRUST ME. I am going somewhere with this.]

[Perspective . . .]

I'm starting this chapter with the introduction I use in my physics courses when I get to the chapters on Newton's Laws (there is nothing truly weird here; it's more of a preamble). The intent of the exercise is to give students a little perspective and an appreciation for where they are in history. It's fun. Enjoy the traipse.

> When you, as a high school student at Polytechnic School in the year 2015, have an English paper to write, you go home, sit down at your desk, push the little button on your home computer and, if it's a Mac, hear that quaint little "bwang" sound the machine makes as it comes to life. Once booted, you click on the WORD program of your choice and, after a few seconds, the screen presents you with what

looks like a clean sheet of paper.

You start typing. You type and type and, after several hours, have what you think is a pretty good paper. You reread it. Let's say you decide you don't like the word "panicky" (a seven-letter word) on the second page. You place your cursor over the word, double click to highlight the word, then type in the word "desperate" (a nine-letter word). The Word program immediately rearranged the page to accommodate the new, longer word. All is well.

You then decide you want the word "desperate" to stand out, so you decide to both italicized and bold face it. No problem. You highlight the word again, hit *COMMAND i* to italicize, then *COMMAND b* to make it bold face. Magically, the word presents itself as "***desperate***." Not surprising or unusual. In fact, this is your due as the owner of a computer in the year 2015.

On page three, you notice there is a paragraph that is out of place. It really should go on page four. Again, no problem. You highlight the section and hit *COMMAND x* to cut it. Everything repositions. The document continues to appear as a seamless entity. You scroll down to the fourth page, position the cursor where you want the paragraph to go, hit *COMMAND v* and voila, the paragraph is placed where you want it with the entire document again re-jiggers itself so as to appear to be a seamless unit.

You use *SPELL CHECK* to be sure you haven't spelled anything incorrectly and *GRAMMAR CHECK* to be sure your grammar is acceptable. You grab a few pictures off the Internet (copyright free, of course) and insert them into your paper using the *text wrap* command to move them around. Once you're happy with the product and it passes parental inspection (assuming your parents do that sort of thing), you hit *COMMAND p* to send the file via WiFi to your printer. The printer, in turn, spits out a clean copy of your masterpiece, color pictures and all.

This has taken you all of three hours to do. It is no big deal. It is your birthright as a 21st centuryer (yes, I just make up that word—they don't call me the William Shakespeare of Virginia Avenue for nothing).

If I had been given the same assignment when I was at San Marino High School in the 1960's, I would have used pen and paper to *hand write* the essay, then gotten my typewriter out and finished it off with an easy-to-read, type-written presentation (later, in college, I even had an IBM Selectric, which was a hulking beast but had a built in correction tape—see photo to the right—and please note that I've cleverly, effortlessly placed the photo into this document BECAUSE I'M USING A COMPUTER TO WRITE THIS).

The paper would take me three hours to write (just like you), but then another three hours to type. Teachers at the time would deduct for spelling or grammatical errors, so I would have to proofread it for both spelling and grammar. If I realized I had misspelled a word for any reason, and that included typos (i.e., spelling mistakes that were the consequence of my lousy typing skills, versus just getting the spelling wrong and not realizing it), I'd have to use White Out or the self-correcting feature on the Selectric to erase the error, then type in the correct word (this, again, assuming I noticed the problem).[1]

Of course, if the word was supposed to have *nine letters* in it but my version had only *seven*, I was screwed as the typewriter couldn't rearrange the page to suit an expansion of a line. I'd either have to find a *seven-letter* word that would do the job or erase, then re-type *the entire line* to accommodate the *nine-letter* word. And, of course, there was no such thing as moving whole paragraphs around without retyping at least one page.

There was no Spell Check or Grammar Check, and if I wanted a picture to accompany the piece, I had to cut the picture out of its original home, then be sure in typing the page that I provided a voided area for the picture to go into whereupon I would quite literally glue the photo onto the

[1] I had a roommate at ASU one year who paid a typist $2 a page to type up a paper he had written, and because he picked the paper up a half-hour before class, didn't have time to proofread the work. He got a FAIL on a paper because the woman had made *eighteen* typos on the first two pages, and so the professor failed him. Such was college life in the 1960's.

page . . .

> In short, writing a paper in the old days was not at all like writing a paper in this day-and-age.

So why do you think I start my "Newton's Laws" section this way? Most people, kids included (and myself, often), don't generally think past their nose when it comes to recognizing how good their life is as it stands *in the present*. And a corollary to that is that most people are pretty oblivious to the fact that life in *this* day-and-age may be *radically different* than it was in yesteryear. Newton's life was surely not our life, but the life of people just twenty years before Newton was REALLY not our life, nor Newton's. In fact, it is amazing that Newton even had the *chance* to do that he did in science.

Not clear? Newton was able to be as wild and crazy as he wanted to be when it came to scientific investigations, but that wasn't the case for individuals much previous to him. Enter Galileo Galilei, a professor at the *University of Padua* in Italy, teaching geometry, mechanics and astronomy, and the man who is sometimes called *the father of modern (western) science*. He died the year before Newtons was born (January, 1643).

Sometime around 1609, Galileo stumbled across a new invention called a *telescope* that came out of the Netherlands, made some modifications to it, and presented it to the Doge of Venice. Venice was a seafaring nation and a commercial powerhouse at the time. Before the telescope, ships coming into port would be spotted, maybe, two hours out, and all hell would break loose as the dock workers would scramble to ready the docks for the incoming cargo. With the aid of the telescope, that lead time was extended to six to eight hours. This was so huge that the Doge gave Galileo a stipend for life as a reward and told him to go off and do more science.

That's exactly what Galileo did. Among other things, he used the telescope to view sun spots on the surface of the sun (a really bad idea, but that's what he did); he used the telescope to find and chronicle the motion of the four largest of Jupiter's moons (now called *the Galilean moons* . . . and I might add, this was a very dicey bit of information to have and publish, as he did, as it suggested that everything in the universe did not revolve around the earth); and he played with ideas that had been laid down by Aristotle and were generally accepted by the scientific world of the time (not to mention the church) but that were wrong (no, a sliding object doesn't come to rest because *an object's natural state is to be at rest and objects just naturally migrate to their natural state*, it comes to rest because there is another force acting on it, *friction*, which does the job).

None of this seems out of place by our standards, but Galileo risked being burnt at the stake by the Vatican for his actions. Why? Because deigning to suggest that Aristotle wasn't the alpha and omega in scientific matters inadvertently suggested that the Vatican wasn't infallible,[2] and that was not something one did (he was even so naïve as to take his telescope to the Vatican to show the clergy there the moons of Jupiter, thereby proving that the earth wasn't the center of all—their reaction wasn't to embrace what he had discovered, their reaction was to tell him to clam up about it.)

I'm not going through all the ins-and-outs of the story, but in short, after recanting his views during his heresy trial (again, you didn't mess with the church's brand), Galileo was put under house arrest for the remainder of his ten or eleven years. And as I said, the year after his death saw the birth of Newton (no, I don't think the one was the reincarnation of the other). Eighteen years later, Newton made his "discovery" of gravity, and the discipline of *Newtonian physics* was off and running.

The only reason Newton was able to explore the physical world without fear of losing his life (a la Galileo) was because sometime during his adolescence, cooler heads at the Vatican realized they were in big trouble doctrinally. So even though it wasn't until the 1950's that the Vatican formally acknowledged that Galileo had been right about the earth's place in the solar system (and universe), the Vatican reached out to scientists between the time of Galileo and the time of Newton and made an agreement. As long as they (the scientists) didn't delve into "metaphysical topics" (meta meaning *beyond*, so metaphysics meaning *beyond the physical*) and kept their speculations about God and death and such to themselves, they could poke and prod the physical world to their heart's content.

The point is that life during Galileo's time was not at all like life is now (or even like life a few years after his death). During his life, you could quite literally be burned at the stake for being stubbornly inquisitive about the physical world. Yet that kind of restriction never impinges upon our thinking . . . kind of like it never existed . . . (sort of like you, if you are young, not recognizing that writing an English paper was once a lot more

[2] The picture that the early Christian hierarchy, specifically the Vatican, wanted to paint for the faithful was that the only way to get to God was through Christ and hence, because the church was "the skin of Christ," through the church (this is what supposedly gave the church the power to cut one off from God through excommunication). Aristotle maintained that the earth was the center of all things with the Sun orbiting the earth (the Ptolemaic view of the universe). This fed quite nicely into the church's claim that "man is the center of God's creation," which made Aristotle the church's man. The church additionally claimed to be infallible ("we don't make mistakes") which meant that assailing Aristotle was tantamount to challenging his subscriber, the Church. This was heresy, which was punishable for those who refused to recant their views by being burned at the stake. That, according to them, was how they would "save your soul."

technically complicated than turning on a computer).

_____x_____

[The idea that people haven't thought much about all the change that has happened in bringing us to the point in life at which we currently reside is going to take us several places of weirdness. None of this is monumental and none of it is important in the sense that it affects the way you live your life, but bear with me. I'm having fun.]

In *The Theosophical Outlook* (December 1919) Rudyard Kipling wrote:

They will come back, come back again,
As long as the red earth rolls.
He never wasted a leaf or a tree.
Do you think He would squander souls?

This wonderful poem suggests that "the red earth exists and humans, having populated it, reincarnate."

In fact, according to the Brothers (and as much as this is going to fly in the face of intuition even amongst those who believe in reincarnation), the earth didn't exactly come first. Consciousness—the stuff that would become you and me (though probably not in the form you and I associate with Consciousness now)—existed in the Inner Worlds *as the earth developed*. The earth's physical evolution was pushed and pulled by the karmic necessities of the Awarenesses that would take up bodies in this place. On the surface, humankind appears to be a late-comer, and it physically is, but what *underlies* the human form is not. (I talked about this in Volume 1.)

. . . And so much for this chapter's *we're-going-to-a-weird-place*, numero uno.

_____x_____

[The second bit of amusement in this chapter is related to the first, which I just laid out for you. Its preamble takes a little different path, though. We'll start with information about one of the five books I read when I first came into contact with the Brothers, *The Mahatma Letters* by A.P. Sinnett. (The other four books, which I mentioned earlier, can be found at Quest Books, the publishing house of the Theosophical Society

of America (Adyar) located in Wheaton, Illinois and associated with Blavasky's residence and the original home of the Theosophical Society in India at Adyar in Madras, India.[3] They are *The Secret Doctrine*, which is fascinating but hardly beginner's fare, *The Voice of the Silence*, *The Light on the Path* and *At the Feet of the Master*.[4])]

In 1879, the leading English daily newspaper in all of India was *The Pioneer*. Around that time, A.P. Sinnett (the publisher of *the Pioneer*) met Blavasky and asked if she would deliver a letter from him "to her Mahatmas."[5] She said *yes*, and so started a correspondence only half of which we have (nobody knows what his letters asked, only what the replies were—I talked about this in Volume 1).

The Mahatma Letters by A.P. Sinnett was a compilation of those replies. They were written by K.H. and Morya to Sinnett between 1880 and 1884 (the letters currently reside in the British Museum in London, England[6]—the book can still be bought through Quest Books).

I'm mentioning the book here because the overwhelming feeling that I got when I read it was that Sinnett was really wasting the Brother's time with the questions he appeared to be asking (again, we don't have his letters, only the Brother's responses). I say that because an enormous amount of ink was spent talking about the evolution of Beings through "the inner rounds and the outer rounds" of this solar evolution.

So what the hell were "the inner and outer rounds?" I don't really know. My best guess (as I pointed out in Volume 1) is that they have to do with the great sweep of evolution-of-Consciousness that has, over an enormous period of time, moved through our solar system (the inner round),

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3 I actually stayed in one of the guest rooms at Adyar when I was in Madras, not because of any connection I might have had with the Brothers but because they just accepted guests.

4 The Brothers told us that when they were considering "going public" through Blavasky, there was considerably discussion within their ranks as to whether this would be a good idea. They knew they would not be dealing with chela types but, rather, just plain folks. As a consequence, they knew that people's child-selves would most likely get in the way of the teachings. I mention this as a warning. If you decide to get into Theosophical writings, some of it will be very good but some of it will seem arrogant and self-important. I can't remember the titles, but there were several books I started and had to put down due to this. Just a warning. . .

5 The word "mahatma" is Sanskrit and means "great soul." It is an allusion to the Brothers.

6 One of the features of the letters was that two of them were reported to have materialized in front of Sinnett *out of thin air.* Supposedly, if you look at those particular missives with a magnifying glass, you will find that the alphabetic script making up the words are formed using thousands and thousands of tiny dots, much like the way black and white photos were rendered in old newspapers. This is not the way ink behaves when applied to paper in classical "writing." Strange, but not surprising, all things considered.

including experience in the inner worlds, and how that has happened more than once (the outer rounds). I don't think it was something the Brothers really wanted to talk about, but that is what Sinnett asked about so chapters were devoted to the topic.

In my world, at least for me, the information involved in those chapters was interesting in a gee-whiz sort of way, but in a worldly way it was really *pretty useless*. Having made that observation concerning some of the esoteric material focused on by some Theosophists in the formative years of the society, there were some very abstract works that I *didn't* find useless. For instance, *The Secret Doctrine* by Blavasky was (according to Blavasky) a translation of one of the ancient texts the Brothers held in guardianship (anything you find in parenthesis has been inserted by me). The first several lines of *The Secret Doctrine* read:

> 1.) The Eternal Parent, wrapped in Her ever-invisible robes, had slumbered once again for seven eternities.
>
> 2.) Time was not, for it lay asleep in the infinite bosom of duration.
>
> 3.) Universal Mind was not, for there were no Ah-Hi to contain it (the Ah-Hi were the first of the Dhyani-Chohans[7]).
>
> 4.) The seven ways to bliss were not . . .
>
> 5.) Darkness alone filled the boundless all, for Father, Mother and Son were once more One, and the Son[8] had not awakened yet for the new Wheel,[9] and His pilgrimage thereon.
>
> 6.) The seven sublime lords and the seven truths had ceased to be, and the Universe, the son of Necessity, was

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[7] "Dhyani" is a Sanskrit word that translates as "one who meditates" (according to TS Wiki). The Dhyani Chohans were, according to Blavasky, immense presences responsibility for manifesting the material worlds, impressing upon them the ideas of Divine Mind. In Christian lore, I suspect they might be likened to Arch Angels, though Christians tend to personify such Beings (they even gave them names, making them seem human). In reality, these formless Beings were and are vast in comparison to the tiny, tiny, tiny, tiny Consciousnesses that are you and me.

[8] I think "the Son" is referring to the Consciousnesses that would move into experience when the opportunity arose.

[9] At the human level, "the Wheel" is a reference to the cyclic need to come into matter, be confronted with experience, make choices from which come consequences which, in turn, elicit more experience and choice. This process is cyclic, hence the allusion to a wheel that goes round and round. In the Buddhist tradition, "getting off the wheel" refers to getting to a point where there is no longer a necessity for a Being to be drawn back into incarnation. The quote above is, I think, making reference to this kind of cyclic coming into matter, but on a cosmic level.

immersed in Paranishpanna (absolute perfection), to be outbreathed by that which is and yet is not. Naught was!

7.) The cause of existence had been done away with . . .

8.) Alone, the one form of existence stretched boundless, infinite, causeless, in dreamless sleep; life pulsated unconscious in universal space, throughout that all-presence which is sensed by the opened eye of the Dangma (the spiritual sight of the highest of the mahatmas).

(As a side point, it is interesting how much this sounds like the beginning of Lao Tzu's *Tao Te Ching* (*The Way of Life*).[10] It is also interesting how much information is in all of this underneath the surface where only meditation can go.)

The point is that "in the beginning," according to all of these doctrines (including Christianity—"In the beginning was the Word . . ."), humankind in body was not a player. This shouldn't be surprising. Primal Consciousness existed, but the path to unfolding hadn't yet been created.

In other words, there has been a lot of water under the bridge between "in the beginning" and "now" and, consequently, you'd have to expect a lot of change . . . no, Change . . . no, CHANGE . . . no, CHANGE . . . no, CHANGE . . . no, Change . . . no, CHANGE . . . NO, REAL, REAL CHANGE with time.

[10] Bynner's translation of the *Tao* reads:

Existence is beyond the power of words
To define:
Words may be used
But are none of them absolute.
In the beginning of heaven and earth there were no words,
Words came out of the womb of matter;
And whether a man dispassionately
Sees to the core
Or passionately
Sees the surface,
The core and the surface
Are essentially the same,
Words making them seem different
Only to express appearance.
If name be needed, wonder names them both:
From wonder into wonder
Existence opens.

Got the picture?

_____x_____

[So where am I going with all of this?]

In the November, 2013 "Smithsonian" magazine, Jerry Adler discussed what is called *the Burgess Shale*. This is a shale deposit located in the Canadian Rockies that, in 1909, was found to contain a treasure trove of 500,000,000-year-old fossils from what is called "the Cambrian explosion." (It was around this time that relatively rapid acceleration of diversification occurred and most of the phyla that exist today came into existence. It was during this period that the seas went from effectively empty to teaming with life.) In this fossil sampling were found *Pikaia*, tiny creatures that had rudimentary backbones (notochords), preamble to vertebrates (the subphylum to which we belong).

With great difficulty, the man who made the discovery, Charles D Walcott (he was the Secretary of the Smithsonian in Washington), tried to classify the 65,000 specimens he excavated from the site between 1909 and 1924. Between 1971 and 1985, a Cambridge professor named Harry Whittington took another look at the fossils and concluded that many of the fossils did not fit into any of the then known phyla. That suggested that there were animal forms that nature tried out (experimented with) and discarded.

In 1989, Harvard paleontologist Stephen Gould wrote the book *Wonderful Life* (a Pulitzer Prize finalist in 1991) in which he reflects on all of these crazy-wild, discarded body plans that seem to be evident in the Burgess Shale fossils, and the randomness of the process by which some went bye-bye and others, our own ancestors included, made it. According to the Smithsonian article's author, the process was like a lottery in which, "the lineage leading to human beings just happened to have held a winning ticket. If one could somehow turn the clock back to the Cambrian and run the game again, there is no reason to think the outcome would be the same. These little creatures, entombed in rock for a half-billion years, are a reminder that we are so very lucky to be here."

Of course, there are other paleontologists who completely disagree with all of this. It isn't surprising that some enterprising souls would jump on the bandwagon going in the other direction.

The Brothers were obviously not a part of this discussion, but things

they told us forty-or-so years ago in the early 1980's suggest an interesting twist to the findings of the good Mr. Adler (though they weren't speaking directly to Mr. Adler's work—they were talking generally).

Nature, they said, needed to build the forms required for this spiritual evolution to proceed forward, and the way one does that when more or less starting from scratch is by *tinkering* (this is not a word the Brothers used—I'm taking poetic license here). And when a path served its purpose and was no longer needed, it was allowed to die out. There was and is, after all, no *real* death, so it is not as though anything of real importance was ever actually lost . . .

Put a little differently, according to the Brothers, during the early part of earth's history when animal form were coming into existence, nature spent a considerable amount of time practicing with the making of complex biological structures. Much of the experimentation was done using large animals,[11] hence the age of the dinosaurs. Yes, it was a cosmic disaster, a celestial body colliding with the earth, that wiped them out, but we are not alone with our karma. Though the Brothers never spoke specifically to this point, and as much as it might seem like a stretch, it makes sense to me that if the mind of God does not stop at the stratosphere, when it was time for a change, change would come and the dinosaurs would be gone.

In any case, as time proceeded, the designs were miniaturized.

The human liver, sometimes referred to as "the body's chemical factory," is a good example. Being the size of a nerf ball and weighing only about three pounds, it carries on chemical reactions designed to break nutrients down into usable form. It also produces bile, it produces and store red blood cells, it carries on oxidation, hydrolysis and reduction reactions to detoxifies harmful chemicals that have been ingested by the body, and it regulates glucose and glycogen. In total, it is responsible for around 500 chemical-reaction-related tasks in the body.

This can all be done in modern, large-scale, full-blown laboratories of course, but these aren't trivial processes and the grapefruit-size liver does it all in the claustrophobic confines of your body cavity. It is, in short, a wonder of miniaturization.

The point is that there was a time when nature was experimenting with the pieces that would be needed to produce and support the vehicles (bodies) in which we now ride. But if what the Brothers have said is accurate, the path it wended to that end was not as random as it outwardly appeared (Mr. Adler). That seemingly helter-skelter path was informed by

[11] On the Argentinian coast, Darwin apparently found fossil remains of sloth the size of elephants and a 2000-pound armadillo.

the necessity of the Consciousnesses that would animate form on this planet *in what was then the future* but is now *today*. Those Consciousnesses were you and me when we existed as pure Awarenesses, the animators of *form to be*.

. . . And with that we have *strangely weird*, numero due (pronounced dueh, where *due* is the number *two* in Italian).

_____x_____

[Two Centaurs walk into a bar . . . myths, science's little "Marco Polo" problem, and we are still talking about *weirdness*.]

When Marco Polo wrote about his travels, he told stories about crocodiles and coconuts and civilizations that were far more advanced and expansive than those found in Europe. As a consequence, he was believed to be a purveyor of hooey. Why? Because Europeans hadn't experienced any of those things and, hampered with a blinding superiority complex and staggering arrogance, couldn't bring themselves to believe that such things existed. In fact, the term "it's a Marco Polo" was, for a time, synonymous with *exaggeration* and *the telling of tall tales*.

This chapter is predicated on the observation that normal people (myself included in many respects) are so attached to the way their world looks and feels and appears to work in the here-and-now, they really can't (or at least don't) imagine it has ever been any other way.

So here is one more bit of disharmony for those of you who like your view of the world and universe tied up with a nice, neat bow.

I talked a little bit about myths in Volume 1. I'm about to repeat and extend that conversation here.

Myths seem to be of two kinds. There are myths that are simply fictional stories that have come down from ancient times (or times that would have been termed ancient *in* ancient times), and there are myths that recount actual happenings that occurred so long ago, our historical connection to them has been lost. *The Iliad,* for instance, was written by Homer in the 8th century AD. It was about a 12th century AD war and a city, Troy, that was lost to time and deemed mythical until its physical presence was discovered by Heinrich Schliemann in 1870.

On a little different note, according to the Brothers, one of the more exotic myths concerning ancient, ancient Greece, is related to one of the many experiments nature and karma animated as it played with form. This

was the *Centaur*. As hard as this may be to believe, the Brothers said the last two Centaurs, individuals who are very highly developed in a spiritual sense and are a part of the Brotherhood, still hold form on this level. They act as guardians to one of the Brothers' hidden places in Greece in the hills above the place of the oracle at Delphi. And in the off-chance you get the bright idea that you might try to go find them, let me assure you that they are perfectly capable of projecting thought in a way that is not to be trifled with. In short, they can protective themselves.

Centaurs as a group did not evolve to be particularly advanced animal/Beings, but there were evidently some of their ilk of a different nature that were quite another kettle of fish. A part of the tradition of Greek culture of the time was for the upper classes to send their youth to these more accomplished, learned Centaurs for education, the most notable being a Centaur named Chiron (the photo to the right is of a 1st century AD fresco of Chiron teaching Achilles; it currently residing in the Museo Archeologico Nazionale, Naples, Italy).

What's more, I apparently had a life in Greece "as a teacher of the young" (Rolf alluded to this obliquely in that "first story" he told me) when my own training came at the hands of one of these Beings.

But how could science have no evidence of such creatures?

Forty years ago, the Brothers said something else to our group that I found both exotic and interesting. In a completely unrelated conversation, they said that the earth's fossil record is not as accurate as you might expect because matter was not as dense in ancient times as it is now.

The general drift was that right now, we are in *the Kali Yuga,* the *age of iron*, the period when Consciousness is as deeply immersed in matter as it will ever be in this evolution. As a consequence, not only are the thought-forms we daily wade through the thickest, densest, grossest, heaviest this evolution will experience, so also is the state of matter. In fact, though this is not something they ever talked about in the public meetings (as I remember), apparently in ancient times the veils between the levels were not as well defined as they are now and, as such, there were Awarenesses that animated forms that had bodies that appeared solid but were "different" in the sense that they were not as seated in the physical as you or I, being partially animated in the inner worlds.

I'm thinking the bodies of such Being would not likely leave much in the way of fossil remains . . . which means (echoing the Brothers) that our

fossil record may not be anywhere as complete as we think.

And so we have *strangely weird* numero tre.[12]

_____x_____

[Science's *Marco Polo problem* . . .]

Scientists, historian, anthropologists, geologists and most of the world's population would probably assign talk like this (i.e., that the fossil record is not as accurate as we think) to the "Marco Polo file," but some discerning soul may not. I say this because physicists and astronomers have their own "Marco Polo" problems to deal with, or at least they would if people were more aware of what we know about the physical world.

Examples? There are two problems (minimum) that we have really fudged on that have observational teeth. The first has to do with what we know about the motion of stars at the edge of our galaxy. In a nutshell,

[12] I have, over the years, written snippets of things about stuff the Brothers told us that are definitely not a part of everyday human or scientific experience. Here are a few of those writings: It's funny the things one remembers for no good reason. I was riding home from school today and my mind flashed on something the Brothers said in one of the meetings (it was literally two sentences worth). Apparently, in the high passes of the Himalayas, you can find prayer flags stuck in the mountain at various places, especially at points where the footpaths are particularly narrow with thousand-foot drop-offs to one side. I assume they are there to mark the spot where someone died. What the Brothers said was that some of the Dark Brothers (presumably lesser members as this is a pretty petty thing to do) would sometimes attach a thoughtform to one of these prayer flags that would act like a booby trap. If someone touched the flag, they would get a sudden psychic blast (this, I suppose, would manifest as a moment of mental unbalance and confusion) that could send the individual over the edge. It wasn't widespread, but it had happened.

As I was cogitating on my ride, my brain switched to tummo (pronounced *toomo*), the Buddhist practice of controlling the body's "inner heat." There are tales of monks sitting out in the snow for hours during blizzards, perfectly warm due to their ability to practice tummo (if you will remember, this was something that fascinated Kay's German friend, Jussic). What got me thinking was how a modern western scientists might react to such stories. The word *poppycock* came to mind. How could the body counteract the slowing of molecular vibration associated with freezing for any length of time in a blizzard?

There is certainly no physical mechanism in the human body designed to do this, but I suspect the missing link is in the body's connection to the inner worlds. Drawing energy from there is not something that is measurable, but if an individual could do it (even unconsciously), well, that might explain the feat. One way or the other, the Brothers did say it was a possibility (the control, not necessarily the inner-world connection).

In all of these situations, trying to get someone who has the ability to wield these powers and who actually knows what is happening when he or she exercises them—getting them to present themselves to the world to perform the feats is supremely unlikely. Chelas aren't going to share what's going on with tummo because it isn't time for normal humans to learn how to control the mind in that way (can you imagine what a Trump or Putin would be like with that kind of mental control?), and the Dark Ones don't want to draw attention to themselves because that would make it more difficult to control others, which is one of their main aims in life. So this kind of thing will have to sit in the realm of superstition, which is, for the sake of humanity at this point in time, where it belongs.

they are moving too fast, given the perceived mass of the galaxy.

Explanation: According to Newton's First Law, *objects in motion stay in motion in a straight line unless impinged upon by a force*. That means that for an object to follow a *circular path*, there must exist a center-oriented force pulling the object out of said *straight-line motion*. In Newton's theory, forces that do this are nicknamed *centripetal forces*. Additionally, these forces are related to the *mass* (m) of the object feeling the effect, the *radius of the path* (R) and the *velocity of the object* (v). That relationship is $F_c = m (v^2/R)$.

In the case of celestial objects, that centripetal force comes from what Newton called gravity. Gravity is a function of the mass of the object that is feeling the effect (the mass of our star, for instance) and the mass of all the stuff that is creating the gravitational field (the mass of all the other stars in our galaxy, plus the mass of the black hole in the center of our galaxy).

When it comes to stars at the edge of our galaxy, what has been observed is that there is not enough mass in the observable galaxy to generate the centripetal force needed, given the speed at which they have been observed to be traveling. In other words, there needs to be more mass in our galaxy somewhere, somehow, to explain how the outer stars can be kept in their orbits while moving so fast. Astronomers have postulated that this missing mass is made up of what is called *dark matter*. In fact, our best guess is that 26% of the universe is made *up* of dark matter—*matter we have never come into contact with* (as far as we can tell) *and that we cannot identify*,

The other little problem is that we have widely accepted evidence that the universe is expanding *faster than the speed of light*.[13] Being disabused of the misconception about violating Einstein's *nothing can go faster than the speed of light* claim (see footnote), some folks breathe a sigh of relief.

THEY SHOULDN'T!

Apparently, there is again something about the universe that we totally don't understand. The geometry of space has expanded at a normal rate for billions of years, but something has recently accelerated that expansion via what physicists call *inflation* (huh?) to a speed *greater than that of light*.

How could this be? Physicists suggest *dark energy*. In fact, they

[13] At first blush, this might seem to violate Einstein's dictum that nothing can move faster than the speed of light, but it doesn't. The "nothing" being referred to in Einstein's pronouncement has to do with physical objects. What is moving here is not physical, it is space itself, literally the underlying geometry of universe.

now believe that 70% of the universe is made *up* of dark energy—energy *we know absolutely nothing about* but that apparently acts on matter in a manner opposite that of gravity, which is to say, doesn't accelerate objects toward other object but, rather, accelerates them *away from* other objects.

It is the workings of these mysterious parts that are making the universe act as it does. And having named it and hypothesized about it, we can all rest easy . . . which for me sounds like Marco Polo could be alive and well in the world of physics.

And as for that lack of evident that Centaurs existed because matter was "thinner" in ancient times? Given that the current scientific belief is that we don't really know all that much about matter and its properties or, at least, 96% of the matter/energy in the universe, maybe that isn't as far-fetched as one might think . . .

(I know, I'm not being very fair to science here, but that's OK. It'll manage.) And no, I haven't lost my mind. We *are* going someplace with all of this. Hang in there.

_____x_____

[Atlantean minds, and we are still plinking away in the *you've got to be kidding* department.]

In his Socratic dialogue *Timaeus*, Plato made mention of an island kingdom that went to war with Greece and lost, and that was wiped out when it was submerged in the Atlantic. The myth has been at the center of all sorts of stories and scholarly discourse over the centuries. Everyone and his or her mother seems to have a view as to what Plato was on about when it came to *Atlantis*.

And the consensus? Just about everyone in academia thinks it's a myth . . . kind of like the Centaurs . . . and that there is no credible historic evidence of any ancient cataclysm involving the sinking of an island nation. They will also probably tell you that the folks who believe in such things are wackoes.

Still . . .

In one of the Brother's public meetings, someone asked a question that seemed innocuous enough on the surface, but whose answer kind of took me by surprise. The query? "We seem to be in a time of massively accelerated technological advancement. Why?"

As I said, the answer was short and sweat and not something I was expecting. The Master who was speaking said that we are seeing at this

time a large influx of "Atlantean minds," as he put it, and their skandas[14] are bringing with them a deep urge to explore on a technological level.[15]

I should probably point out that of the thousands of hours the Brothers devoted to talking and counseling with us, I only remember them spending a few minutes here, a few minutes there talking about this topic (which gives you some feel for how important the topic was to them.)

According to their very short discourse, Atlantis existed with the Atlantean society being highly technologically advanced (way, way beyond our own as we stand at this point in time—the Brothers said that they are in possession of Atlantean artifact, hidden away, that are quite amazing—I also assume, given the Greeks defeated then in a war of sorts, that their genius was not in the direction of making war but, rather, in other directions). They (the Atlanteans) had, for instance, moved to a point where they could control the weather. On a spiritual level, though, they were a failed society. It was their manipulation of nature that caused the earthquakes that sank their island and sent humankind, which pretty much needed a re-start at the time, back to the Stone Age.[16]

That's all I remember the Brothers saying (which was actually quite a bit).[17]

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[14] I think I defined this earlier, but *skandas* is a Sanskrit word that refers to *tendencies* someone brings in with them from previous lives.

[15] Scary enough for you? It gets even better. When computers were just beginning to become part and parcel of people's lives, the Brothers said there would come a time when they (computers) would likely advance to a point where disincarnates on the other side might overshadow them, giving them what would appear to be a mind of their own. I suspect AI of 2023 is homing in on that time as I write.

(This addendum is being written in June of 2025: At this point, there are AI systems that can self-modify, can and have rewritten their coding to prevent being shut down. There are also instances where self-modifying AI has faked legal documents to prevent being re-purposed. I'm sure computer scientists believe this is all the consequence of the coding that has created the AI in the first place, but I suspect the Brothers would have other views.)

[16] As you would expect, there were individuals who were spiritually evolved within Atlantean society—the Brothers didn't suddenly materialize a hundred years ago with Blavasky (the Hindu tradition has talked about *mahatmas* for, like, forever). The Brothers did say that it was known within their circle when the end was nearing, and not wanting *everything* to be lost with the cataclysm, their people sent emissaries out into the world (probably chelas) to seed less advanced peoples with limited technological knowledge (they weren't specific about time or what this entailed, but I'm surmising that at the very least they spread knowledge about the domestication of animals, the establishment of permanent settlements by otherwise nomadic peoples, and the cultivation of crops through irrigation). Interestingly, modern historians and anthropologists believe that there were two places where agriculture took root, seemingly independent of one another, at about the same point in time (this was evidently around 11,000 BC). The know-how may have come from these emissaries (again, I'm surmising).

[17] The Brothers didn't say so, but I wouldn't be surprised if it was that cataclysm that caused the great flood noted in the Bible (though I really don't care, so I haven't done any research to see if the time periods fit). It is interesting, in Peter Thompson's *Secrets of the*

As for Plato, I see two possibilities. The first is that a record of the existence of Atlantis was kept in Egyptian texts (some of the stories around "the myth" make this claim). An ancestor of Solon (Solon was born in Athens in 630 BC and was known as one of the *Seven Wise Men of Greece*) was made privy to that information (again, as some stories around "the myth" claim). As such, Plato, a later ancestor of Solon, came into contact with the information.

If this is what happened, that would be where the historical accuracy ended. Plato would have used the idea as a rhetorical contrivance to animate his Socratic dialogue in *Timaeus* with no confirmation of "the myth" one way or the other.

The alternative has less historical credence but may have been the real deal. Plato was a initiate of the Mystery Schools, the place of the Brothers. There is a chance he came into contact with all of this through them (I don't know this for a fact, but I suspect he was a chela). If that be the case, what he wrote didn't technically have historical credentials but was related to something *that did happen*.

This is all, of course, monumentally unimportant in the sense that what you are, as a human being, hardly hinges on any of it. What the Brothers said about it, though, was kind of interesting in a very off-the-wall sort of way.

I've buried this bit of amusement deep in this book because if someone had hit me with it early on and I didn't know any better, I'd have counted everything thereafter with the reverence I give to folks who think that wearing an aluminum hat on their head in the form of a pyramid will protect them from otherworldly influences (or is it aliens, I can't remember which). It is also possible that nobody is going to believe what I think happened, anyway, so why clutter up the early part of the book with my thoughts on the subject. As I haven't, myself, spent more than, what, three or four hours thinking about this (mainly for what you've just read), I've decided to lay it on you in the knowledge that you will likely take it with a grain of sand. Besides, its presence will help add to the bottom line of this chapter, WHICH IS STILL TO COME. Be patient. All will be revealed shortly.

Great Pyramids, he points out that there was a water mark forty tiers up on the side of the Great Pyramid—this would be at the 200 foot level—that he suggests might have been a remnant of that great flood . . .

And as a small point of order: Given all the greed and thoughtlessness that seems to be the hallmark of our world today, we may be approaching another time of cleansing, this time via global warming (?).

_____x_____

[Ahhh, the last topic in the last *hard to believe* chapter . . .]

One of the things that pretty much goes without saying with the Brothers is that it is possible for a trained mind to project thought so fully and powerfully that it can actually affect both matter and what other's perceive. In the E.Phil book, I alluded to this with a story about a fakir who projected the image of fire around himself (he looked like he went up in flames) into the mind of an English reporter in the late 1800's.[18]

Blavasky talked about a similar situation (that is, *thought projection*) in *From the Caves and Jungles of Hindustan*, a book she wrote about her travels through India in the late 1800's. (Traveling through India is not an easy task today—doing it in the nineteenth century *as a woman* was nearly impossible, though that is what she did.)

In that book, which is now in Public Domain, she recounts an experience she had that had to do with a very arrogant Englishman (this being commonplace in nineteenth century India) and one of the Masters who was not at the time known to be so by the group. (Please note: My original copy of the text was taken from the Internet. I wanted to check something, so I went back to a hard copy of the book that I found in Kay's library. In comparing the two, the spirit of the passages hadn't changed but the language wasn't the same. What I didn't realize at the start was that the

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[18] I additionally talked about a little different kind of example in the E.Phil book. Legend has it that Apollonius of Tyana showed up to the court of the Roman Emperor Domician to answer trumped up charges about . . . whatever. He essentially said (upon showing up) that he didn't have time for this nonsense, *then literally vanished before the eyes of the two-hundred or so people* who were present at the time. This is poo-pooed mightily as pure fabrication by historians because *who vanishes into thin air?* . . . but it may not have been (poo-poo, that is). Historians do acknowledge that he was a Pythagorean (if you will remember, I mentioned earlier that Pythagoras, center of the Pythagorean community, was at the time a high chela and would with time become the master KH). Although I'm not sure if this is also known, Apollonius was additionally an initiate of the Greater Mysteries. That means he was either a very high chela or a master himself (probably the former). Although I have his dates wrong in the E.Phil book (I said he lived several centuries before Christ—according to Wikipedia, he was a contemporary of Jesus), he *was* a thorn in the side of the church centuries after Christ because he was known to have done many of the same "miracles" Jesus did. What the church (and Wikipedia) didn't make clear for all sorts of reasons is that there is a huge difference between an Avatar—a world teacher—which is what Christ was, and a chela (or even a master). Both are members of the Brotherhood, but each has a very different task in life. In any case, being an adept as Apollonius was, sending out his *mental body* (this is a part of the aura), then clothing it in material form, would definitely have been something a Being at that level could have done. And when it was time to go, all he had to do was to pull his attention out of the form and it would vanish. That, I suspect, is what happened.

original manuscript was written in Russian, so what you are seeing below is a melding of two different translations. Also, I've underlined the parts I want highlighted, and I've put my own comments in brackets.)

The sections I'm interested in read:

> When evening began to draw on, we were driving beneath the trees of a wild jungle when we arrived at a large lake and left the carriages. The shores were overgrown with reeds—not the reeds that answer our European notions, but rather such as Gulliver was likely to meet with in his travels to Brobdingnag. The place was perfectly deserted, but we saw a boat fastened close to the land. We had still about an hour and a half of daylight before us, and so we quietly sat down on some ruins and enjoyed the splendid view, whilst the servants of the Takur transported our bags, boxes and bundles of rugs from the carriages to the ferry boat. Mr. Y was preparing to paint the picture before us, which indeed was charming.
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> "Don't be in a hurry to take down this view," said Gulab-Sing [identified as *the Takur* in the book; this was the Master]. "In half an hour we shall be on the islet, where the view is still lovelier. We may spend there the night and tomorrow morning as well."
>
> "I am afraid it will be too dark in an hour," said Mr. Y, opening his colour (sic) box. "And as for tomorrow, we shall probably have to start very early."
>
> "Oh, no! There is not the slightest need to start early. We may even stay here part of the afternoon. From here to the railway station, it is only three hours, and the train only leaves for Jubbulpore at eight in the evening. And do you know," added the Takur, smiling in his usual mysterious way, "I am going to treat you to a concert. Tonight you shall be witness of a very interesting natural phenomenon connected with this island."
>
> We all pricked our ears with curiosity.
>
> "Do you mean that island there? and do you really think we must go?" asked the Colonel. "Why should we not spend the night here, where we are so deliciously cool, and where . . . "
>
> "Where the forest swarms with playful leopards, and

the reeds shelter snug family parties of the serpent race, were you going to say, Colonel? interrupted the Babu with a broad grim [a *Babu* is a "Hindu gentleman" and in this case was another member of the party]. "Don't you admire this merry gathering, for instance? Look at them! There is the father and the mother, uncles and aunts, and children . . . I am sure I could point out even a mother-in-law."

Miss B looked in the direction he indicated and shrieked till all the echoes of the forest groaned in answer. Not farther then three steps from her there were at least forty grown up serpents and baby snakes. They amused themselves by practicing somersaults, coiled up, then straightened again and interlaced their tails, presenting to our dilated eyes a picture of perfect innocence and primitive contentment. Miss B could not stand it any longer and fled to the carriage, whence she showed us a pale, horrified face. The Takur, who had arranged himself comfortably beside Mr. Y in order to watch the progress of his painting, left his seat and looked attentively at the dangerous group, quietly smoking his gargari—Rajput narghile—all the while.

"If you do not stop screaming you will attract all the wild animals of the forest in another ten minutes," said he. "None of you have anything to fear. If you do not excite an animal, he is almost sure to leave you alone, and most probably will run away from you."

With these words, he lightly waved his pipe in the direction of the serpentine family party. A thunder bolt falling in their midst could not have been more effectual. The whole living mass looked stunned for a moment, and then rapidly disappeared among the reeds with loud hissing and rustling.

"Now this is pure mesmerism, I declare," said the Colonel, on whom not a gesture of the Takur was lost. "How did you do it, Gulab-Sing? Where did you learn this science?"

"They were simply frightened away by the sudden movement of my chibook, and there was no science and no mesmerism about it. Probably by this fashionable modern word you mean what we Hindus call *vashikarana vidya*—that is to say, the science of charming people and animals by

the force of will. However, as I have already said, this has nothing to do with what I did."

"But you do not deny, do you, that you have studied this science and possess this gift?"

"Of course I don't. Every Hindu of my sect is bound to study the mysteries of physiology and psychology amongst other secrets left to us by our ancestors. But what of that? I am very much afraid, my dear Colonel," said the Takur with a quiet smile, "that you are rather inclined to view the simplest of my acts through a mystical prism. Narayan has been telling you all kind of things about me behind my back . . . Now, is it not so?"

And he looked at Narayan, who sat at his feet, with an indescribable mixture of fondness and reproof. The Dekkan colossus dropped his eyes and remained silent.

"You have guessed rightly," Absently answered Mr. Y, busy over his drawing apparatus. "Narayan sees in you something like his late deity Shiva; something just a little less than Parabrahm. Would you believe it? He seriously assured us that the Raj-Yogis, and amongst them yourself—though I must own I still fail to understand what a Raj-Yogi is, precisely—can force anyone to see, not what is before his eyes at the given moment, but what is only in the imagination of the Raj-Yogi. If I remember rightly he called it Maya . . . Now, this seemed to me going a little too far!"

"Well! You did not believe, of course, and laughed at Narayan?" asked the Takur, fathoming with his eyes the dark green deeps of the lake.

"Not precisely . . . Though I dare say, I did just a little bit," went on Mr. Y, absently, being fully engrossed by the view, and trying to fix his eyes on the most effective part of it. "I dare say I am too skeptical on this kind of question."

"And knowing Mr. Y as I do," said the Colonel, "I can add, for my part, that even were any of these phenomena to happen to himself personally, he, like Dr. Carpenter, would doubt his own eyes rather than believe."

"What you say is a little bit exaggerated, but there is some truth in it. Maybe I would not trust myself in such an occurrence; and I tell you why. If I see something that does not exist, or rather exists only for me, logic would interfere.

However objective my vision may be, before believing in the materiality of a hallucination, I feel I am bound to doubt my own senses and sanity . . . Besides, what bosh all this is! As if I ever will allow myself to believe in the reality of a thing that I alone saw; which belief implies also the admission of somebody else governing and dominating, for the time being, my optical nerves as well as my brain."

"However, there are any number of people who do not doubt because they have had proof that this phenomenon really occurs," remarked the Takur in a careless tone, which showed he had not the slightest desire to insist upon this topic.

However, this remark only increased Mr. Y's excitement.

"No doubt there are!" he exclaimed. "But what does that prove? Beside them, there are equal numbers of people who believe in the materialization of spirits. But do me the kindness of not including me among them!"

"Don't you believe in animal magnetism?"

" . . . I do not positively deny it, though I am doubtful. Mediums and clairvoyants are a sickly lot, as a rule. But I bet you anything, a healthy man in perfectly normal conditions is not to be influence by the tricks of mesmerists. I should like to see a magnetizer, or even a Raj-Yogi, inducing *me* to obey his will."

"Now, my dear fellow, you really ought not to speak so rashly," said the Colonel who, till then, had not taken any part of the discussion.

"Ought I not? Don't take it into your head that it is mere boastfulness on my part. I guarantee failure in my case, simply because every renowned European mesmerist has tried his luck with me, without any result; and that is why I defy the whole lot of them to try again, and feel perfectly safe about it. And why a Hindu Raj-Yogi should succeed where the strongest of the European mesmerists failed, I do not quite see. . . . "

Mr. Y was growing altogether too excited, and the Takur dropped the subject and talked of something else.

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The Babu and Mulji left us to help the servants to transport our luggage to the ferry boat. The remainder of the party had grown very quiet. Miss B dozed peacefully in the carriage, forgetting her recent fright. The Colonel, stretched out on the sand, amused himself by throwing stones into the water . . . Mr. Y sketched hurriedly and diligently, only raising his head from time to time to glance at the opposite shore, and knitting his brow in a preoccupied way. The Takur went on smoking, and as for me, I sat on my folding chair . . .

[. . . At this point, Blavasky muses in her mind about the fact that she met the Takur thirty years earlier and, as best she could tell, he hadn't aged a day since, and she ends her thinking with the thought, "what a strange expression, and what a wonderful Sphinx-like face!" With that, the Takur breaks the silence by saying (somewhat mysteriously as she wasn't speaking her thoughts) . . .]

"Not a very brilliant comparison, my old friend!" suddenly spoke the Takur, and a good-natured laughing note rung in his voice, whilst I shuddered and grew red like a naughty schoolgirl. "This comparison is so inaccurate that it decidedly sins against history in two important points. *Primo*, the Sphinx is a lion; so am I, as indicates the word Sing in my name; but the Sphinx is winged, and I am not. Secondo, the Sphinx is a woman as well as a winged lion, but the Rajput Singhs never had anything effeminate in their characters. Besides, the Spiind is the daughter of Chimera, or Echidna, who were neither beautiful nor good; and so you might have chosen a more flattering and less inaccurate comparison!"

I simply gasped in my utter confusion, and he gave vent to his merriment, which by no means relieved me.[19]

[19] This awareness of what is going on in the mind of a chela (or lay-chela) can be a bit of a surprise when someone is just starting out with the Brothers. Kay, when she was begin-

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"The ferryboat is ready! Come on! . . ." came the shouts of Mulji and the Babu from the shore.

"I have finished," said Mr. Y with a deep sigh, gathering his papers and paints.

"Let us see your work," insisted the Colonel and Miss B, who had just awakened.

We glanced at his fresh, wet picture and froze in amazement. Instead of the lake, with its wooded shore receding in the bluish and velvety distance of the evening mist, we saw before us a charming seascape. Thick clusters of shapely palm scattered over the chalky yellow littoral protecting a low, native bungalow, not unlike a fortress, with stone balconies and a flat roof. At its entrance stood an elephant, and a native boat, tied to the shore, was bobbing on the crest of a foaming white billow.

"Where on earth did you get this?" excitedly exclaimed the Colonel. "Not much use sitting in the sun to draw pictures out of your imagination . . . "

"What do you mean, *out of my imagination*?" said Mr Y., fumbling with his papers. "Do you mean you do not recognize the lake?"

"What lake? You must have sketched while asleep."

By this time, all our party had gathered around the Colonel, and the sketch was being passed from hand to hand. When it reached Naryan, the latter exclaimed aloud and stood still in utter amazement.

"This is 'Davri-Bol,' the estate of the Takur-Sahib. I recognize it. Last year, during the famine, I lived there for two months."

I was the first to grasp the meaning of it all . . .

The Takur-Sahib had projected at the Englishman the image of his country house as though it existed on the island, which it didn't, and the

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ning, was constantly thinking toward the Brothers in general and KH in particular. At one point, when she mentioned this to him, his reply was, "Yes, you are like the wind that never stops blowing." It was a kindly rebuke, but it let her know that what she was thinking was not unobserved and not going on just in her head.

Englishman had painted it into the landscape as though it was there. (As you can imagine, given the arrogance and general feeling of English superiority that the man carried with him, it was quite a blow when he realized what had happened to him.)

Obviously, Blavasky could have been blowing smoke as to the entire episode, but if the Indian *was* one of the Brothers (or even just a high chela, for that matter . . . though in fact I believe it was KH), having the ability to do that kind of thing would have been child's play. Science is hampered by the fact that individuals like that just aren't available for observation, and if they were, they in all probability wouldn't perform. Getting people hooked on the idea of mankind having *latent powers within* just isn't their thing.

_____x_____

[The payoff . . .]

So, finally, what *is* this chapter on about? I can just see (in my mind's eye) the comedian Louis Black summarizing, angrily pointing his finger at the crowd, shaking his head vigorously making that jowly sound he makes when he's incredulous, saying, "Brrr …Centaurs; brrrr … Atlantis; brrrr … projecting thoughtforms. What's he diddling around with all of this stuff for, anyway. *Has he lost his FUCKING MIND*?"

To answer the good Mr. Black in a word, "No!"

To put things into a little more focused perspective, though . . .

. . . Is there an Egyptian mummy that guards an entrance to one of the places of the Brothers near Saqqara (close to the Great Pyramid), a place wherein reside ancient books of wisdom and Atlantean artifacts that humanity is simply not ready to have access to, whose overshadower is perfectly capable of sending a trespasser out of body should the individual manage to force him or herself passed the illusions that have been placed there to conceal the entrance (remember "pu ent?")?

. . . And are there two centaurs (Tyrsus and Niconian), the last of their kind, that are half on this level and half in the inner worlds, who on behalf of the Brotherhood guard with illusion caves full of Atlantean artifacts in the hills above the place of the oracle at Delphi in Greece?

. . . And is there an ancient place in Tibet, the *Monastery of Long Remembrance*, that is guarded through illusion against encroachment from the outside world but that shelters some of the eldest of the members of

the Brotherhood?

How could I possibly answer with certainty any of these questions?

What I can say is that in all the years and years and years the Brothers spent with us, they spent about the amount of time it takes you to drink your morning coffee on centaurs, and about that same amount of time again on Atlantis.

Why?

Because when all is said and done, as unappealing and irritating and jarring as it is to the child-self, these topics *AREN'T WHAT'S IMPORTANT.*

ARE YOU *KIND* WHEN YOU DON'T HAVE TO BE?
DO YOU LEAVE A PLACE BETTER FOR YOUR HAVING BEEN THERE?
DO YOU FIND THERE IS *TIME ENOUGH* TO DO A THOUGHTFUL ACT?
DO YOU TAKE ACTION WITHOUT THOUGHT OF PERSONAL GAIN?
DO YOU TAKE TIME TO LOOK TO SEE THE THINGS YOU HAVE ATTACHED YOURSELF TO THAT YOUR SMALL-SELF DOES NOT WANT YOU TO NOTICE?
DO YOU CARRY WITH YOU A TONE OF COMPASSION?
CAN YOU MOVE UNSHAKEN IN THE MIDST OF CHAOS?

These are the important things. Focusing your attention on trivialities like *the inner and outer rounds*, or whether Centaurs existed, or whether Christ walked on water . . . each of which is nice to know about, but none of which is going to make you a better person, this is a waste of mental energy.

Put a little differently, it is *so easy* to get sidetracked when it comes to the Brothers and all the lore that has built up around them. But if you want to know what the *Brothers* thought was important, go back to the chapter of quotes in Volume 1. That was the heart of their message to us, and that is what you should leave with if you are going to leave with anything.

In other words, all we've been doing over the last few chapters has been *playing*. That's all it's been, PLAY.

Chapter 57

Death Is Not the Opposite of Life, It's the Opposite of Birth

This will be short and sweet.[1]

My life has been comprised of ages. In each age, there were things that were appropriate for me to do and learn. There were times when I could *feel* karma's hand at every turn. There were times when I was completely cut loose in a karmic sense. At all times, though, I was being prodded to learn. It reminds me of the quote from the *Tao Te Ching* (from *Tao*, translated by Charles Henry Mackintosh, 1926):

> A sound man is good at salvage, at seeing that nothing is lost.
> Having what is called insight, a good man, before he can help a bad man,
> finds in himself the matter with the bad man.
> Whichever teacher discounts this lesson is as far from the path as the other, whatever else he may know.
> This is the heart of it.
>
> Lao Tzu

It wasn't always easy to accept, and it wasn't always easy to see, but karma and life have always taken care of me. All the thrashing around, all the trying to make life do what I wanted it to, all of the high emotion—it all did nothing but make things harder on me as karma and life took me where I needed to go.[2]

This was terribly hard to come to grips with during most of my life—

[1] Fat chance! When have you ever known a teacher to *not* spiel when the opportunity has presented itself?

[2] Hopefully, by this point in time, you will understand that this is not an endorsement of fatalism.

my child-self so wanted what it wanted—but as I got older and was able to look back in some state of equanimity, it all became clear.

Karma took me where I needed to be. It supported me completely. Again, Lao Tzu:

How can a man move if he will not let life flow?
Yield and you will not break; bent you can straighten.
Empty you can hold; torn you can mend.
And as *want* can reward you, so *wealth* can bewilder.
Aware of this, a wise man has the simple return that other men seek:
Without inflaming himself, he is kindled;
Without explaining himself, he is explained;
Without taking credit, he is accredited;
And because he does not compete,
He finds peaceful competence.

My advice to you? Keep learning! Learn about yourself. Learn about your world. Learn about the people around you. Learn about how to live life "without kicking up dust in your wake." And once you have learned, put what you've learned into good and useful action.

So it's time to go (hee hee), but not without recounting my three favorite stories or, more accurately, two stories and one observation.

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[The old man's *abundance* . . .]

The first comes from the E.Phil. book. Although I didn't tell my students that the man was a chela, or that this was a story told to my group by one of the Brothers, in fact, all of that was true. The man in the story lived in the early 1800's. He was a chela. From the Brothers:

> There was an old man who lived quite literally under a tree just outside a small village on the road between Bangalore and Mysore in the south of India. He was a beggar, and although begging was a perfectly acceptable way of life within India at the time, this particular man was a tremendous irritant to the headman of the village.

It seems that in good times and bad, the beggar was always cheerful, kindly, and comforting to those who chose to sit and talk to him by the roadside. The headman, on the other hand, was wealthy, busy, and rarely had the time to talk to anyone about anything except village affairs and business. Yet with all his prominence, the headman's life wasn't filled with the satisfaction he believed was his due. That is why it so particularly irked him to know that just up the road sat an old beggar who had nothing, but who was considerably happier than he.

Things came to a head one hot summer day when a visiting dignitary arrived forty-five minutes late, and then took another half hour of the headman's valuable time rhapsodizing about the delightful conversation he had just had with "that old man up the way." It was just too much. So after the official departed, the headman made his way to the beggar's place and confronted him in a very unpleasant, condescending manner.

"I am respected for miles around," he matter-of-factly stated. "I have wealth; I have influence. In fact, I have everything a sane man could ever hope to have. You, on the other hand, have absolutely nothing except a miserable, dirty dhoti to wrap yourself in and a beat-up begging bowl. Yet I am constantly miserable and you insufferably happy. I don't understand why and, moreover, I don't like it. So tell me, oh holy one, what makes you so joyful? What is it that you have that I haven't?"

The beggar had sat at that same spot for over forty years. He was known throughout the region for his wisdom, and because he was sensitive to the needs and spiritual necessities of the people around him, he was aware of the headman's frustrations. In a way, he was grateful the crisis had arisen. It gave him an opportunity to talk to the headman, to help him if possible.

As for the question the headman had thrown at the beggar, the answer came immediately and straight from the heart.

"My son," began the old fellow, "If I had to pick one thing that you do not have but that truly gives me joy, it would have to be *my abundance*."

Listening but not understanding, the headman's face grew red. Thinking himself mocked, years of pent-up anger exploded forth as he nearly screamed, "Abundance! WHAT IS THIS ABUNDANCE? I *HAVE* things. *YOU* have *NOTHING*!"

The beggar sat unmoved by the attack, unruffled by the storm, unpoisoned by the venom directed his way. He could have responded in kind, angrily defending himself as most of us would have done, but he didn't. Lovingness flowed through him and around him just as it always had, and because the thrust of the headman's rage fell as if on deaf ears, its destructive edge lost its power just as a burst balloon loses air.

The nature of the beggar's countenance was so caring and kind that, irrationality spent, the headman embarrassingly came to his senses. Tears filled his eyes. He bent down to touch his head to the ground at the old man's feet, then said in a hushed and most pitiable way, "Forgive me. I just don't understand."

The beggar put his hand on the man's head, then raised him up with a benevolent smile. The two sat quietly with one another for a while, then began to discuss, among other things, the insanity of anger.

After a time, the headman respectfully said, "Holy one, I still don't understand. Please tell me about your abundance and your joy."

The old fellow chuckled and, in three sentences, answered. "My son," he replied, "the One Self, in Its infinite wisdom and compassion, saw that it was my necessity in this life to have *nothing*. And of *that* It has given me an abundance."

"Without my abundance," he continued, "I would never have come to my enlightenment, and without that, I would never have known my joy."

Imagine what it would be like to be so completely comfortable with existence in matter that you could, without the slightest hint of fatalism, accept a life in which you had *an abundance of nothing*.

_____x_____

[Padre Pio . . .]

The second story has to do with a Catholic monk named Padre Pio. I don't know if he's made it yet, but at some point in time he will undoubtedly become a candidate for Sainthood.

This was a very benevolent, very devout man. Due to his devotion, he experienced the stigmata at a young age. He was also a bit of an embarrassment to the church because it was said that when he prayed, he would sometimes become so ecstatic that he would actually lift up off the ground . . . physically. The other monks would have a terrible time pulling him down out of the rafters when he was in that state. (I know this sounds absurd, but it is a part of the lore around the man.)

In any case, the story is that Padre Pio was walking in the monastery garden, talking to a reporter one day, when the reporter asked, "If you knew you would die in an hour, what would you do?"

His reply? "Why, continue walking here in the garden with you."

Imagine being so complete in your dealings with life that there would be nothing missing, nothing of importance left undone when it came time to die.

_____x_____

[A bit of advice . . .]

The last story isn't a story at all but, rather, advice. A little preface is required, though.

I was raised and trained, at least academically, in standard, western, scientific logic. Although I did have learning disabilities, I was not stupid. Neither was I inclined toward irrational impressionability. When I ran into the Brothers, none of that changed. I watched. I listened. I observed both outwardly and inwardly. I wasn't rabidly for or against anything. I was thoughtfully guarded.

My mom's problem with "the bad guys" *could* have been some kind of bizarre hallucination on her part. Although it didn't fit her personality, Kay *could* have been delusional or just plain lying. My own personal, inward experiences *could* have been complex neurological malfunctions inside my own brain. The tradition wrapped around Blavasky and the Brothers *could* have been a vast hoax. And Eastern metaphysics *could* be complete bullshit.

The possibility of all of this presented itself fairly early on in my dealings with Kay and the Brothers.

I kept on with the Brothers for three reasons.

First, during my entire time of looking and thinking and questioning, I didn't come up with a *single inconsistency* in what I was being told about life, about being human, about existence in general.[3]

Second, I experienced this *most benevolent tone* that enveloped me every time I heard the Brothers speak, whether it be a one-on-one experience or in a large group. It was as though my child-self would just go to sleep and the highest in me would peek through. The first time it happened was at the first meeting I ever attended (this being completely unexpected). It was like nothing I had ever experienced in my life.

And third, I realized that if my path motivated me to be selflessly useful to others, then if I went into oblivion at death my passage through life would, at the very least, have done no harm . . . and that couldn't be a bad thing.

Moving in a little different direction (remember, this is all preamble), although they do rankle me considerably when I'm cornered and have to listen to them, when all is said and done I do have sympathy for fundamentalists of all stripes. These are people who are so completely wrapped up in their particular belief that they are afraid to doubt and, as a consequence, are unable to see that even if their actions are good, *their underlying assumptions may be wrong*.

So along with feeling compassion for the claustrophobic world of the fundamentalist, I am a bit leery of them, too. Fundamentalist Christians who won't let their children play with children outside their belief because the outsiders will, in the Fundamentalist's opinion, be going to hell when they die; fundamentalist Muslims who are willing to kill their own people to further their sometimes insane, narrowly defined cause; fundamentalist politicians who are so involved in their own personal power that they are oblivious to the damage their policies do to ordinary people; fundamentalist scientists who try so hard to stomp out people's hope that there might be a God or, at the very least, some reason for existence above and beyond the small personal self, these are the people I am apprehensive about . . . which brings me to my parting shot.

If, in your wanderings, you come into contact with a fundamentalist

[3] This includes the rather intense questioning I experienced at the hands of my very smart, very iconoclastic students in the E.Phil activity I ran for Poly seniors for twenty-five to thirty years.

of any stripe, try to talk sense to them. But if it becomes clear that the only kind of sense they are willing to listen to is *their* kind of sense, keep in mind my favorite bumper sticker:

Never try to teach a pig how to sing.
It's a waste of your time,
And it just serves to irritate the pig.
:)

And with that, I would suggest you go back once again to the chapter on the Brothers in Volume 1, and enjoy what they had to say about experience and our world . . .

Welcome to Volume 2 of the autobiography of the presumably late Craig Fletcher, whose life story was a source of puzzlement to a small but questioning number of friends and students. Although you will find some of the material in this volume just plain fun and whimsical—two chapters on *pranks* and five chapters on *lab-cover artwork*—there will be much more esoterica as presented in Volume 1. In fact, if you haven't read Volume 1, you should do that as most of the arcane stuff in this volume will not make much sense without the background provided there. One way or the other, be assured, he's somewhere chuckling to himself about the improbable fact that you are reading these words at all.

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